Self Diagnosis Supported model

SERVICE MANUAL

AE-5 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-28FC60	RM-892	Europe	SCC-Q11K-A	*KV-32FC60*	RM-892	Europe	SCC-Q11G-A
KV-28FC60/Z	RM-892	Europe	SCC-Q11J-A	*KV-32FC60/Z*	RM-892	Europe	SCC-Q11H-A

FD Trinitron

Trinitron
SONY

TRINITRON ® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K, L, I	GERMAN /NICAM Stereo	L VHF : F02-F10 UHF : F21-F60 CABLE : B-Q B/G/H VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF : A-H2 (C) UHF : 21-69 I UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Model	28FC60	28FC60/Z	32FC60	32FC60/Z
Power Consumption	132W	132W	130W	130W

Picture Tube	FD Trinitron Approx 71cm (28 inches) (Approx 66cm picture measured diagonally) Approx 82cm (32 inches) (Approx 76cm picture measured diagonally) 110 degree deflection	Sound output Subwoofer	Right and Left speaker 2 x 25W (Music Power) 2 x 15W (RMS)
Input/Output Terminals [REAR]		Power Requirements	220 - 240V
1:21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Dimensions	28" 772(w)x497(h)x533(d)mm 32" 867(w)x564(h)x558(d)mm
2:21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of TV Video and Audio signals. (selectable)	Weight	28" Approx 42.5kg 32" Approx 65kg
3:21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of Audio/Video signals (monitor out)	Supplied Accessories	RM-892 Remote Commander (1) IEC designated R6 battery (2)
RCA Jacks	Output for Audio Signals	Other Features	NICAM stereo, NexTView, Digital Comb Filter 100Hz Picture Graphic Equaliser
External speaker terminals	2 pin DIN		
S Video input	4 pin DIN	**RM-892**	
Input/Output Terminals [FRONT]		Remote control system	Infrared control
Headphone jack	stereo minijack	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
		Dimensions	Approx 210x55x23mm (w/h/d)
		Weight	Approx 110g (not including battery)
Design and specifications are subject to change without notice.			

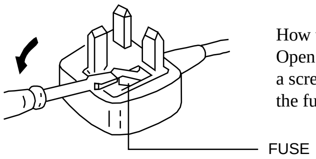
Model Name Item	KV-28FC60	KV-28FC60/Z	KV-32FC60	KV-32FC60Z
Pal Comb	ON	ON	ON	ON
PIP	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON
Woofer Box	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Top Rear in (3)	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON
Projector	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON
Norm I	ON	ON	ON	ON
Norm D/K	ON	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF
Norm L	ON	ON	ON	ON
Norm SAT	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF
Teletext	ON	ON	ON	ON
Nicam Stereo	ON	ON	ON	ON

WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the ASTA mark.

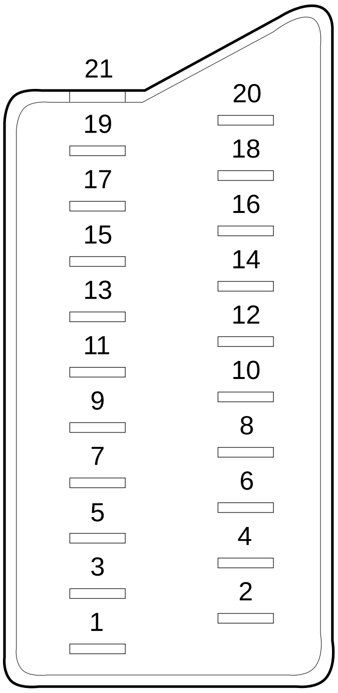
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

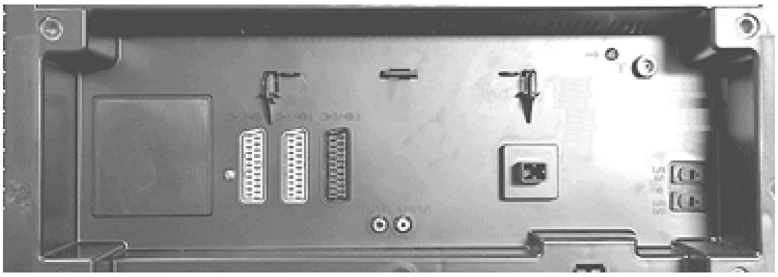
21 pin connector



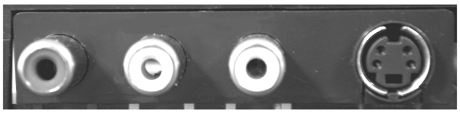
Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Rear Connection Panel



S Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V +/- 3dB 75ohm, positive Sync.



S-Video socket

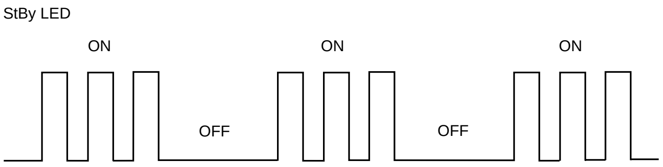
AE-5 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-5 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in. Fuse is open circuit.	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overcurrent (OCP)	2 times	H.OUT (Q6803/6804) is shorted. (D Board) Linearity FET (Q6806) is shorted. (D Board) IC6604 Power IC is shorted. (D Board)	Power does not come on Load on power line has shorted
Vertical Deflection stopped	4 times	+15V is not supplied R6835 open (D Board) -15V is not supplied R6834 open (D Board) IC6700 is shorted (D Board)	Vertical deflection pulse has stopped Power line has shorted

Error Message	**LED Code**
No error	00
I2C bus error	01
OCP (Over Current Protection)	02
OVP (Over Voltage Protection)	03
Vertical Protection	04
Reserved	05
Horizontal Protection	06
Speaker Protection	07
M-B. Teletext Decoder	08
M-B. ST24C32, NVM	09
J-B, TDA9320, Main Colour Decoder	10
B1/B2-B, Feature Box	11
B1-B, D/A Converter	12
E-B. Backend	13
J-B. MSP3410D, Sound Processor	14
J-B. CXD2057, Auto Wide	15

Flash Timing Example : e.g. error number 3



Error Detection Monitor

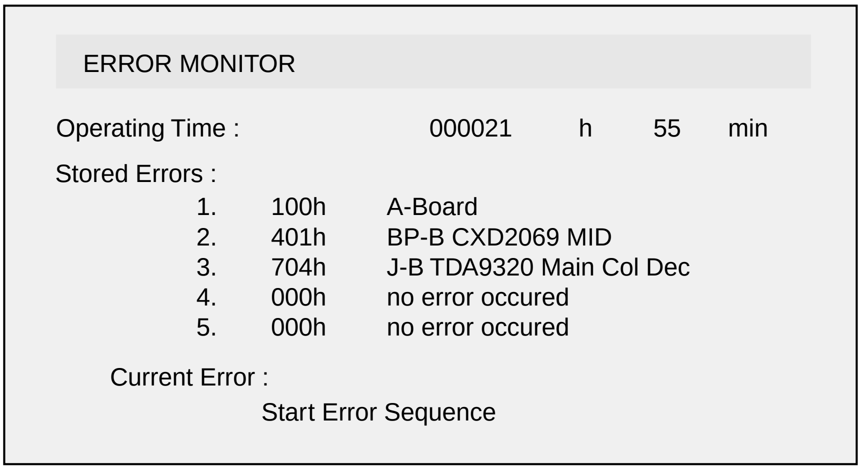
Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after each attempt, it will be regarded as an error.
There are three steps to check for errors.

1. IIC line 0
   If all devices except the NVM have errors, IIC line 0 error is displayed.
2. Board check
   If all devices mounted on one board have errors, board error is displayed.
3. Each device check
   If IIC line error and board error are not detected then the device with the error is displayed.

The detected errors can be displayed as follows :

1. Error Monitor Menu.
2. Error Reader.

1. Error Monitor Menu



```
ERROR MONITOR

Operating Time :                000021    h    55    min

Stored Errors :
               1.    100h    A-Board
               2.    401h    BP-B CXD2069 MID
               3.    704h    J-B TDA9320 Main Col Dec
               4.    000h    no error occured
               5.    000h    no error occured

     Current Error :
                     Start Error Sequence
```

2. Error Reader Display

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10. Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table.

Error Code	Error Message
000h	No error occured
001h	Bus error, IIC0
002h	Bus error, IIC1
100h	**A-Board**
101h	A-B. CXA1875, Port Expander
102h	A-B. TU1326, Main Tuner
103h	A-B. TU1350, Sub Tuner
200h	**B1-Board**
201h	B1-B. P83C654, Feature Box B1-B. SDA9280, D/A Converter
202h	B1-B. P83C654, Feature Box B1-B. SDA9280, D/A Converter
300h	**B2-Board**
301h	B2-B. SAA4977, BESIC
400h	**BP-Board**
401h	BP-B. CXD2069, MID
500h	**D1 Board**
501h	D1-B, CXA8070, Dynamic Converter
502h	D1-B. CXA1875, Port Expander
600h	**E-Board**
601h	E-B. CXD2100, Backend
700h	**J-Board**
701h	J-B. CXD2057, Auto Wide
702h	J-B. SDA9288, PIP
703h	J-B. Sub Colour Decoder TDA9320 or CXA2123
704h	J-B. Main Colour Decoder TDA9320 or CXA2123
705h	J-B. CXA1875, Sub-Sound
706h	J-B. TDA7309, HP-Amplifier
707h	J-B. TEA6422DT, Audio Switch
708h	J-B. MSP3410D, Sound Processor
709h	J-B. TC9337F, Sound DSP
70Ah	J-B. CXA21X9, AV Switch
800h	**M-Board**
801h	M-B. ST24C32, NVM

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SECURITÈ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

The operating instructions mentioned here are partial abstracts from the ‘Operating Instruction Manual’. The page numbers of the ‘Operating Instruction Manual’ remain as in the manual.

Using the TV menu system

The TV consists of a menu system which is based on a series of user friendly on-screen displays and menus. These displays will help you get the most from your TV, helping you to change picture and sound settings, to alter the size of the TV picture and to rearrange the TV channels etc.

Adjusting the picture and sound

ⓘ Picture and sound are adjusted at the factory. You can however, adjust them individually.

1 Press MENU.
Select the symbol 👤 for Picture or ♪ for Sound using ▲ or ▼.
Push to ▶ to enter.
↳ The menu Picture or Sound Control is displayed.

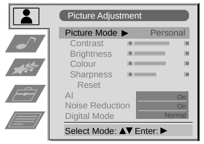
2 Select the desired item using ▲ or ▼. Push to ▶ to enter.

3 Adjust the selected item using ▲, ▼, ▶ and ◀. Press OK to store.

ⓘ Refer to the tables on this and the following page for more information.

4 Repeat steps 2 and 3 to adjust other items.

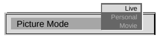
5 Press MENU to return to the normal TV screen.

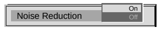

Picture Adjustment
Picture Mode ▶
Contrast
Brightness
Colour
Sharpness
Reset
AI
Noise Reduction
Digital Mode

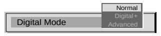
Picture Mode ▶ Personal
AI On
Noise Reduction On
Digital Mode Normal
Select Mode: ▲▼ Enter: ▶

Picture Control

Item	Effect/Operation
Picture Mode	▼ Live (for live broadcasts) Personal (for individual settings) ▲ Movie (for movie broadcasts)
Contrast	Less ◀ ▶ More
Brightness*	Darker ◀ ▶ Brighter
Colour*	Less ◀ ▶ More
Hue**	Reddish ◀ ▶ Greenish
Sharpness*	Softer ◀ ▶ Sharper
Reset	Resets picture to the factory preset levels
AI (Artificial Intelligence)	▲ Off: normal ▼ On: Automatic optimization of contrast level according to the TV signal
Noise Reduction	▲ Off: Normal ▼ On: Reduces picture noise in case of a weak broadcasting signal
Digital Mode	▼ Normal: 100 Hz. Digital+: 100 Hz plus line flicker reduction ▲ Advanced: Digital+ plus smoothing of motions


Picture Mode
Live
Personal
Movie

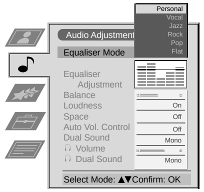

Noise Reduction
On
Off


Digital Mode
Normal
Digital+
Advanced

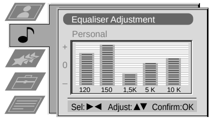
* Only if Personal is selected in Picture Mode
** Only available for NTSC colour signal (e.g. US video tapes)

Sound Control

Item	Effect/Operation
Equaliser mode	Select between the following sound settings ▼ Personal Vocal Jazz Rock Pop ▲ Flat (fixed setting, cannot be adjusted)
Equaliser adjustment	ⓘ You can adjust the mode selected in Equaliser mode by cutting and boosting of 5 selected frequency bands. ⚠ Only the changes made in Personal can be stored, the others return to factory setting. ● Select the desired bar using ▶ or ◀, adjust using ▲ and ▼. Press OK to store.
Balance	▶ More right ◀ More left
Loudness	▼ Off: Normal ▲ On: For music broadcasts
Space	▼ Off: Normal ▲ On: Special accoustic effect
Auto Volume Control	▲ On: volume level of the channels will stay the same independent of the broadcast signal (e.g. in case of advertisements) ▼ Off: volume level changes according to the broadcast signal
Dual Sound	For a bilingual broadcast: ▼ A for channel 1 ▲ B for channel 2 For a stereo broadcast: ▼ Mono ▲ Stereo ⓘ In case of a NICAM stereo broadcast the indication NICAM appears briefly on the screen.
Headphones 🎧 Volume 🎧 Dual Sound	 Less ◀ ▶ More For a bilingual broadcast: ▼ A for channel 1 ▲ B for channel 2


Audio Adjustment
Equaliser Mode
Personal
Vocal
Jazz
Rock
Pop
Flat
Equaliser Adjustment
Balance
Loudness
Space
Auto Vol. Control
Dual Sound
Volume
Dual Sound

Loudness On
Space Off
Auto Vol. Control Off
Dual Sound Mono
🎧 Dual Sound Mono
Select Mode: ▲▼Confirm: OK


Equaliser Adjustment
Personal
+
0
–
120
150
1,5K
5 K
10 K

Sel: ▶◀ Adjust: ▲▼ Confirm:OK

Loudness
Off
On

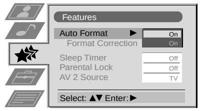
Space
Off
On

Auto Vol. Control
Off
On

Dual Sound
Mono
Stereo

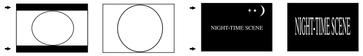
Dual Sound
A
B

Using the Features menu

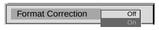

Features
Auto Format ▶ On
Format Correction On
Sleep Timer Off
Parental Lock Off
AV 2 Source TV
Select: ▲▼ Enter: ▶

1. Press the MENU button on the remote control. Select the symbol using ▼. Push to ▶ to enter.
2. Select the desired menu item using ▼. Push to ▶ to enter.
3. Select the desired setting using ▲ or ▼.
4. Store by pressing OK.
5. Press MENU to return to the normal TV screen.

Features

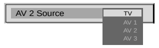
Item	Effect/Operation
Auto Format* *only for aerial signal	▲ Off: Size of picture does not automatically adjust. Normal: Size of picture automatically adjusts according to information from broadcaster. ▼ Full: The TV can automatically adjust the picture size to eliminate any dark areas on the TV picture (as shown below):  NIGHT-TIME SCENE NIGHT-TIME SCENE
Format Correction* *only if Auto Format is set to 'Normal' or 'Full'	▲ On: Smart mode is selected automatically for 4:3/14:9 broadcasts ▼ Off: 4:3/14:9 is selected
Sleep Timer	ⓘ You can select a time period after which the TV switches itself into standby mode ▲ Off 10 min. 20 min. ⋮ ▼ 90 min.
Parental Lock	▲ Off: Normal mode ▼ On: TV can only be switched on out of standby-mode using the Remote Commander, the buttons on the TV do not work.
AV2 Source	ⓘ You can select the source to be output from the Scart connector →2/←2. In this way you can record from this socket while watching another source. ▲ TV audio/video signal from the aerial ╥ AV1 audio/video signal from Scart 1 AV2 audio/video signal from Scart 2 ▼ AV3 audio/video signal from connectors on top or bottom of rear of TV.

Auto Format Off
Normal
Full


Format Correction Off
On

Sleep Timer 10 min

Parental Look Off
On


AV 2 Source TV
AV 1
AV 2
AV 3

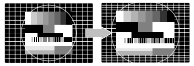
Changing the screen mode

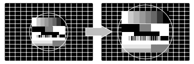
ⓘ When Auto Format in the Features menu is preset to "Normal" or "Full", the TV set automatically selects the detected screen format. Screen mode, however, lets you select the screen format of your choice.

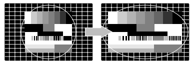
- Press the ⊕ button on the remote control repeatedly to get one of the following formats:

Smart	imitation of wide screen effect for 4:3 broadcasts, parts of the top and bottom of the picture are cut off
4:3	conventional 4:3 aspect ratio, full picture information
14:9	compromise between 4:3 and 16:9 aspect ratios
Zoom	imitation of wide screen effect for letterboxed movies
Wide	for 16:9 broadcasts

ⓘ In Zoom, Smart and 14:9 modes parts of the top and the bottom of the screen are cut off. Using ▲ and ▼ you can adjust the position of the image onscreen to e.g. read subtitles. Press OK to confirm.


Smart


Zoom


Wide

Sorting TV channels

ⓘ After tuning in TV channels, you may wish to rearrange the order of the channels.

1 Press the MENU button on your remote control. Select the symbol 💼 using ▼. Push to ▶ to enter.

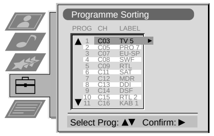
2 Select Programme Sorting using ▼. Push to ▶ to enter.

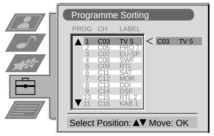
3 Select the programme position of the channel you wish to sort using ▲ or ▼. Push to ▶ to enter.

4 Move the channel to the new programme position using ▲ or ▼. Store by pressing OK.
The channel is now at the new position. The other programme positions move accordingly.

5 To sort other programme positions repeat steps 3 to 4.

6 Press MENU to return to the normal TV screen.


Programme Sorting
PROG CH LABEL
1 C03 TV 5 ▶
2 C05 PRO 7
3 C07 EU-SP
4 C08 SWF
5 C09 RTL
6 C11 SAT
7 C12 MDR
8 C13 DDI
9 C14 DSF
10 C15 RTL 2
11 C16 KAB 1
Select Prog: ▲▼ Confirm: ▶


Programme Sorting
PROG CH LABEL
1 C03 TV 5 < C03 TV 5
2 C05 PRO 7
3 C07 EU-SP
4 C08 SWF
5 C09 RTL
6 C11 SAT
7 C12 MDR
8 C13 DDI
9 C14 DSF
10 C15 RTL 2
11 C16 KAB 1
Select Position: ▲▼ Move: OK

Manually tuning-in channels

ⓘ Use this function to preset channels or a video input source one by one to programme positions of your choice.

1 Press the MENU button on the remote control. Select the symbol 💼 using ▼. Push to ▶ to enter.

2 Select Installation using ▼. Push to ▶ to enter.
Select Manual Programme Preset using ▼. Push to ▶ to enter.

3 Select the programme position by pushing to ▲ or ▼. Push twice to ▶.
The column SYS is highlighted.

4 Select the TV system using ▲ or ▼. Push to ▶ to enter.
ⓘ Available TV systems are I for Ireland or EXT for a video input source (please go to step 5c after selecting EXT).

5 Select your method for the channel tuning using ▲ or ▼. Push to ▶ to enter.
You have the choice between **C** for a terrestrial channel, **S** for a cable channel or **F** for direct frequency input.

6a **Direct Channel Input**
ⓘ For channel numbers input a two digit number, for the channel frequency a three digit number.

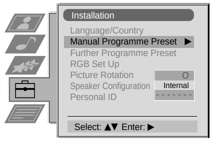
- Select the two or three digits by using the number buttons 0 to 9.
- To start the search and to store the channel, press the OK button.
- To preset other channels repeat steps 3 to 6a.

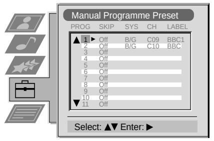
b **Channel search (SEARCH)**
ⓘ Use Search if you do not know the channel number or frequency

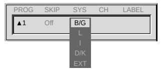
- Start the search for the next available channel by pushing to ▼.
- Store the channel by pressing OK or continue the search by pushing again to ▼.
- To search for other channels repeat steps 3 to 6b.

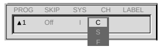
c **For video input sources (EXT)**
- Select the Video Input source using ▲ or ▼.
- Store your selection by pressing OK.
- To allocate other sources repeat steps 3 to 5c.

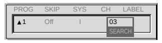
6 Press MENU to return to the normal TV screen.

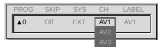

Installation
Language/Country
Manual Programme Preset ▶
Further Programme Preset
RGB Set Up
Picture Rotation O
Speaker Configuration Internal
Personal ID - - - - - - -
Select: ▲▼ Enter: ▶


Manual Programme Preset
PROG SKIP SYS CH LABEL
1 ▶ Off B/G C09 BBC1
2 Off B/G C10 BBC
3 Off
4 Off
5 Off
6 Off
7 Off
8 Off
9 Off
10 Off
11 Off
Select: ▲▼ Enter: ▶


PROG SKIP SYS CH LABEL
▲1 Off B/G
L
I
D/K
EXT


PROG SKIP SYS CH LABEL
▲1 Off I C
S
F


PROG SKIP SYS CH LABEL
▲1 Off I 03
SEARCH


PROG SKIP SYS CH LABEL
▲0 Off EXT AV1 AV1
AV2
AV3

Naming a channel

ⓘ During tuning the channels are usually labelled automatically.
You can, however, individually name a channel or a video input source.

1 Press the MENU button on the remote control. Select the symbol 💼 using ▼. Push to ▶ to enter.

2 Select Installation using ▼. Push to ▶ to enter.
Select Manual Programme Preset using ▼. Push to ▶ to enter.

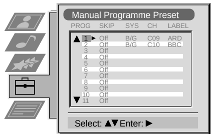
3 Select the programme position of the channel or the video source you wish to label by pushing to ▼ or ▲. Push repeatedly to ▶ until the first element of the position LABEL is highlighted.

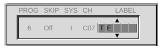
4 Select a number, a letter, + or a blank using ▲ or ▼. Push to ▶ to confirm.
Select the other four characters in the same way.

5 Store your selection by pressing OK.

6 To label other channels or video sources repeat steps 3 to 5.

7 Press MENU to return to the normal TV screen.


Manual Programme Preset
PROG SKIP SYS CH LABEL
1 ▶ Off B/G C09 ARD
2 Off B/G C10 BBC
3 Off
4 Off
5 Off
6 Off
7 Off
8 Off
9 Off
10 Off
11 Off
Select: ▲▼ Enter: ▶


PROG SKIP SYS CH LABEL
6 Off I C07 T E

Skipping programme positions

ⓘ In case of 100 programme positions there may be unused positions, which you can skip in the menu »Manual Programme Preset«. When changing channels with the PROGR +/– buttons they then do not appear.
You can, however, still select them using the number buttons.

1 Press the MENU button on the remote control. Select the symbol 💼 using ▼. Push to ▶ to enter.

2 Select Installation using ▼. Push to ▶ to enter.
Select Manual Programme Preset using ▼. Push to ▶ to enter.

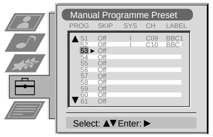
3 Select the programme position you wish to skip by pushing to ▲ or ▼. Push to ▶ to enter.
The column SKIP is highlighted.

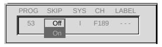
4 Select ON using ▼.

5 Store by pressing OK.

6 To skip other programme positions repeat steps 3 to 5.

7 Press MENU to return to the normal TV screen.

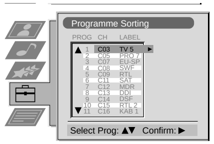

Manual Programme Preset
PROG SKIP SYS CH LABEL
51 Off I C09 BBC1
52 Off I C10 BBC
53 ▶ Off
54 Off
55 Off
56 Off
57 Off
58 Off
59 Off
60 Off
61 Off
Select: ▲▼ Enter: ▶

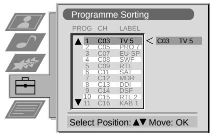

PROG SKIP SYS CH LABEL
53 Off I F189 - - -
On

Sorting TV channels

After tuning in TV channels, you may wish to rearrange the order of the channels.

1. Press the MENU button on your remote control. Select the symbol 🧰 using ▼. Push to ▶ to enter.
2. Select Programme Sorting using ▼. Push to ▶ to enter.
3. Select the programme position of the channel you wish to sort using ▲ or ▼. Push to ▶ to enter.
4. Move the channel to the new programme position using ▲ or ▼. Store by pressing OK.
   The channel is now at the new position. The other programme positions move accordingly.
5. To sort other programme positions repeat steps 3 to 4.
6. Press MENU to return to the normal TV screen.


Programme Sorting
PROG CH LABEL
Select Prog: ▲▼ Confirm: ▶


Programme Sorting
PROG CH LABEL
C03 TV 5
Select Position: ▲▼ Move: OK

Manually tuning-in channels

Use this function to preset channels or a video input source one by one to programme positions of your choice.

1. Press the MENU button on the remote control. Select the symbol 🧰 using ▼. Push to ▶ to enter.
2. Select Installation using ▼. Push to ▶ to enter.
   Select Manual Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position by pushing to ▲ or ▼. Push twice to ▶.
   The column SYS is highlighted.
4. Select the TV system using ▲ or ▼. Push to ▶ to enter.
   Available TV systems are I for Ireland or EXT for a video input source (please go to step 5c after selecting EXT).
5. Select your method for the channel tuning using ▲ or ▼. Push to ▶ to enter.
   You have the choice between **C** for a terrestrial channel, **S** for a cable channel or **F** for direct frequency input.

6a Direct Channel Input

For channel numbers input a two digit number, for the channel frequency a three digit number.

- Select the two or three digits by using the number buttons 0 to 9.
- To start the search and to store the channel, press the OK button.
- To preset other channels repeat steps 3 to 6a.

b Channel search (SEARCH)

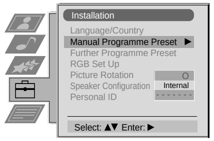
Use Search if you do not know the channel number or frequency

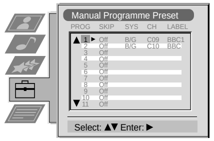
- Start the search for the next available channel by pushing to ▼.
- Store the channel by pressing OK or continue the search by pushing again to ▼.
- To search for other channels repeat steps 3 to 6b.

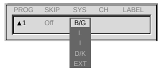
c For video input sources (EXT)

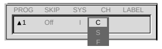
- Select the Video Input source using ▲ or ▼.
- Store your selection by pressing OK.
- To allocate other sources repeat steps 3 to 5c.

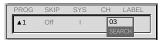
6. Press MENU to return to the normal TV screen.

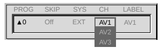

Installation
Language/Country
Manual Programme Preset ▶
Further Programme Preset
RGB Set Up
Picture Rotation
Speaker Configuration Internal
Personal ID
Select: ▲▼ Enter: ▶


Manual Programme Preset
PROG SKIP SYS CH LABEL
Select: ▲▼ Enter: ▶


PROG SKIP SYS CH LABEL
1 Off B/G
L
I
D/K
EXT


PROG SKIP SYS CH LABEL
1 Off I C
S
F

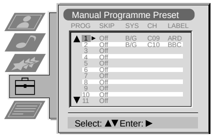

PROG SKIP SYS CH LABEL
1 Off I 03
SEARCH

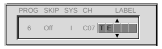

PROG SKIP SYS CH LABEL
0 Off EXT AV1 AV1
AV2
AV3

Naming a channel

During tuning the channels are usually labelled automatically.
You can, however, individually name a channel or a video input source.

1. Press the MENU button on the remote control. Select the symbol 🧰 using ▼. Push to ▶ to enter.
2. Select Installation using ▼. Push to ▶ to enter.
   Select Manual Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position of the channel or the video source you wish to label by pushing to ▼ or ▲. Push repeatedly to ▶ until the first element of the position LABEL is highlighted.
4. Select a number, a letter, + or a blank using ▲ or ▼. Push to ▶ to confirm.
   Select the other four characters in the same way.
5. Store your selection by pressing OK.
6. To label other channels or video sources repeat steps 3 to 5.
7. Press MENU to return to the normal TV screen.

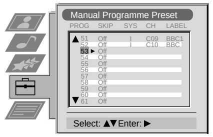

Manual Programme Preset
PROG SKIP SYS CH LABEL
Select: ▲▼ Enter: ▶

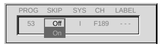

PROG SKIP SYS CH LABEL
6 Off I C07 TE

Skipping programme positions

In case of 100 programme positions there may be unused positions, which you can skip in the menu »Manual Programme Preset«. When changing channels with the PROGR +/– buttons they then do not appear.
You can, however, still select them using the number buttons.

1. Press the MENU button on the remote control. Select the symbol 🧰 using ▼. Push to ▶ to enter.
2. Select Installation using ▼. Push to ▶ to enter.
   Select Manual Programme Preset using ▼. Push to ▶ to enter.
3. Select the programme position you wish to skip by pushing to ▲ or ▼. Push to ▶ to enter.
   The column SKIP is highlighted.
4. Select ON using ▼.
5. Store by pressing OK.
6. To skip other programme positions repeat steps 3 to 5.
7. Press MENU to return to the normal TV screen.


Manual Programme Preset
PROG SKIP SYS CH LABEL
Select: ▲▼ Enter: ▶


PROG SKIP SYS CH LABEL
53 Off I F189 - - -
On

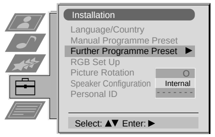
Using the Further Programme Preset function

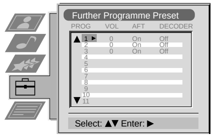
Using the menu Further Programme Preset you can

a) individually adjust the volume level of each channel.

b) improve the quality of a weak channel (picture or sound distortions) with manual fine tuning.

c) preset the AV output for programme positions of those channels with scrambled signals (e.g. from a Pay TV decoder). In this way a connected Smartlink VCR records the unscrambled signal.

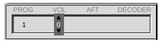

Installation
Language/Country
Manual Programme Preset
Further Programme Preset ▶
RGB Set Up
Picture Rotation O
Speaker Configuration Internal
Personal ID - - - - - - -
Select: ▲▼ Enter: ▶


Further Programme Preset
PROG VOL AFT DECODER
1 ▶ 0 On Off
2 0 On Off
3 0 On Off
4
5
6
7
8
9
10
11
Select: ▲▼ Enter: ▶

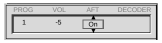
1 Press MENU. Select the symbol 💼 using ▼. Push to ▶ to enter.

2 Select Installation using ▼. Push to ▶ to enter. Select Further Programme Preset using ▼. Push to ▶ to enter.

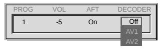
3 Select the programme position of the desired channel by pushing to ▲ or ▼.
Push repeatedly to ▶ to select:
VOL (Volume Offset), AFT (Automatic Fine Tuning) or DECODER.
The selected item changes colour.


PROG VOL AFT DECODER
1 0

4a VOL
Push to ▲ or ▼ to adjust the volume level (range -7 to +7) of the channel.
Store by pressing OK.
Repeat steps 3 and 4a if you wish to adjust the volume level of other channels.


PROG VOL AFT DECODER
1 -5 On

b AFT
Push to ▲ or ▼ to fine tune the channel (range -15 to +15). Store by pressing OK.
Repeat steps 3 and 4b if you wish to fine tune other channels.


PROG VOL AFT DECODER
1 -5 On Off
AV1
AV2

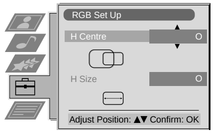
c DECODER
Push to ▲ or ▼ to select AV1 (Euro AV socket 1) or AV2 (Euro AV socket 2) as output for the video source on this programme position. Store by pressing OK.
Repeat steps 3 and 4c if you wish to preset the AV output of other video sources.

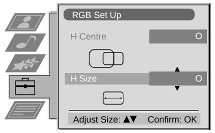
⚠ Should you use Auto Tuning afterwards, this setting will be cancelled.

5 Press MENU to return to the normal TV screen.

Adjusting the picture geometry for an RGB source

When connecting an RGB source such as a Sony playstation you may need to readjust the picture geometry.


RGB Set Up
H Centre O
H Size O
Adjust Position: ▲▼ Confirm: OK


RGB Set Up
H Centre O
H Size O
Adjust Size: ▲▼ Confirm: OK

1 Select the connected RGB source ⊸1 by pressing ⊸ repeatedly.

2 Press MENU. Select the symbol 💼 using ▼. Push to ▶ to enter.

3 Select Installation using ▼. Push to ▶ to enter. Select RGB Set Up using ▼. Push to ▶ to enter.

4 Select H Centre by pushing to ▶. Adjust the centre of the picture (range from -10 to +10) using ▲ or ▼. Store by pressing OK.

5 Select H Size using ▼. Push to ▶ to enter. Adjust the horizontal coordinates (range from -10 to +10) using ▲ or ▼. Store by pressing OK.

6 Press MENU to return to the normal TV screen.

Smartlink

Smartlink is a direct link between your TV set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NexTView Link, Easy Link or Megalogic.
- A fully-wired 21-pin SCART cable to connect your VCR to Scart ⊕2/⊸2 connector.

The features of Smartlink are:

- Tuning information such as the channel overview are downloaded from the TV set to the VCR.
- With NexTView you can programme your VCR easily.
- Direct TV recording: While watching TV you just need to press just one button on the VCR to record this programme.

⚠ For more information on Smartlink please refer to the Instruction Manual of your VCR.

Remote control of other Sony equipment

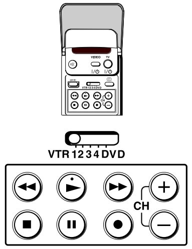
Using the buttons underneath the cover of the remote control you can control other Sony equipment.

1 Open the cover of the remote control.

2 Set the selector VTR 1234 DVD according to the equipment you want to control:

VTR 1	Beta VCR
VTR 2	8 mm VCR
VTR 3	VHS VCR
VTR 4	Digital Video (DCR-VX 1000/9000 E, VHR-1000)
DVD	Digital Video Disk

3 Use the buttons on the remote control to operate the equipment.


VTR 1 2 3 4 DVD
CH

- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on the TV remote control.
- If the equipment does not have a certain function, the corresponding button on the remote control does not work.

Teletext

Most TV channels broadcast information via teletext. The index page of the teletext service (usually page 100) gives you information on how to use the service.

⚠ Please use a TV channel with a strong signal, otherwise there may be Teletext errors.

Switching Teletext on and off

1 Select the TV channel which carries the teletext service you want to view.

2 a Press the ⊜ button once on your remote control to switch Teletext on.
b Press ⊜ again for Mix mode.
↳ The TV broadcast and the Teletext display are overlapped.

3 Press ▭ or press ⊜ a third time to switch teletext off.

Selecting a Teletext Page

Input the three digits of the page number using the number buttons on your remote control.

ⓘ If you have made a mistake:
Type in any three digits, then re-enter the correct page number.

Page Catching

1 Using the number buttons on the remote control, select a teletext page which has several page numbers on it (e.g. the index page).

2 Press the OK button.
↳ Page Catching is displayed.

3 Select the desired page number using ▲ or ▼ then press the OK button.
↳ The requested page is displayed after some seconds.

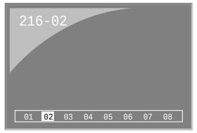
Selecting the next or the preceding page

- Press ⏶ (Page +) or ⏷ (Page -).

Selecting the index page

- Press ⓘ.

Selecting a subpage



ⓘ A teletext page may consist of several subpages. In this case an information line is displayed, showing the number of subpages.

- Select the mode by pushing to ▲. Select the subpage by using ▲ or ▼.

Freezing a Teletext subpage

1 Press ⊞ to freeze the Teletext page.

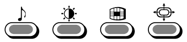
2 Press ⊜ to resume normal teletext reception.

Using Fastext*

*depending on availability of service

ⓘ Fastext lets you access pages with one button stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the remote control.

- Press the coloured button which corresponds to the colour in the colour-coded menu.



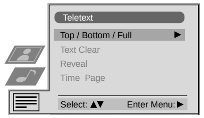
Using the Teletext menu

ⓘ This TV set has a menu-guided teletext system. When teletext is switched on you can use the joystick buttons to operate the teletext menu.

Select the menu functions as follows:

1 Press the MENU button on the remote control to display the Teletext menu.

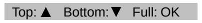
2 Select the teletext function using ▲ or ▼. Push to ▶ to enter.



Top/Bottom/Full

ⓘ For convenient reading of a Teletext page you can enlarge it.
↳ After having selected the function, a sub menu Top ▲ Bottom ▼ Full OK is displayed.

- Push to ▲ to enlarge the upper half of the screen, push to ▼ to enlarge the lower half. Press OK to resume the normal size. Press ⊜ to resume the normal Teletext operation.



Text Clear

ⓘ After having selected the function, you can watch a TV channel while waiting for a requested Teletext page. As soon as the page is available, the symbol ⊜ changes colour.

- Press ⊜ to view the page.

Reveal

ⓘ Some teletext pages contain hidden information (e.g., for a quiz), which you can reveal.
↳ After having selected the function, the hidden information appears.

- Press ⊜ to resume the normal Teletext operation.

Time Page*

*depending on availability of service

ⓘ You can call up a time-coded page - such as an alarm page - at a time specified by you.

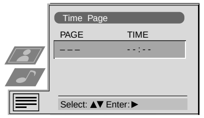
↳ After having selected the function a sub menu is displayed.

1 Select On using ▲ or ▼. Push to ▶ to enter.

2 Enter the three digits of the desired page using the number buttons.

3 Enter the four digits of the desired time using the number buttons.

4 Press OK to store.
↳ The time is displayed in the top left-hand corner of the screen.
At the requested time the page is displayed.



Additional Information

Specifications

Television system	B/G/H, D/K, I, L
Colour system	PAL, SECAM, NTSC 3.58/4.43 (via Video In)
Channel coverage	See Channel Guide on next page
Picture tube	FD Trinitron KV-28FC60/28FC60-Z Approx. 71 cm (28 inches) Approx. 66 cm picture measured diagonally 102° deflection KV-32FC60/32FC60-Z Approx. 82 cm (32 inches) Approx. 76 cm picture measured diagonally 102° deflection
Sockets (Rear)	⇄1/→1: 21-pin scart connector input of audio/video or RGB signals output of TV signals ⇄2/→Ⓢ2:21-pin scart connector input of audio/video or S-video signals selectable output of audio/video signals ⇄3/→Ⓢ3:21-pin scart connector input of audio/video or S-video signals output of audio/video signals (monitor out) → L/G/S/I RCA-connectors, R/D/D/D variable output for audio signals External speaker terminals:2-pin DIN (2) →Ⓢ 3 : 4-pin DIN input of S-video signals →3 Phono jack input of video signals ≤ 3 Phono jacks input of audio signals
Sockets (Front)	🎧 Headphones jack - stereo minijack
Sound output	Right and left speaker 2 x 25W (music power), 2 x 15W (RMS)
Power consumption	KV-28FC60/28FC60-Z: 132 W KV-32FC60/32FC60-Z: 130 W
Dimensions	KV-28FC60/32FC60-Z 772(w) x 497(h) x 533(d) mm KV-32FC60/32FC60-Z 867(w) x 564(h) x 558(d) mm
Weight	KV-28FC60/28FC60-Z Approx. 42.5 kg KV-32FC60/32FC60-Z Approx. 65 kg
Accessoires supplied	1 Remote Control RM-892 2 Batteries 1 Instruction Manual
Other Features	Flat display Trinitron tube, digital noise reduction, 100 Hz picture, graphic equaliser, personal ID, sleep timer, NexTView, NICAM stereo, Digital Comb Filter

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press Ⓘ on the TV. (If ⏻ indicator is on, press ▭ , PROGR+/- or one of the numbered buttons on the remote control.) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using Ⓘ .
Poor or no picture (screen is dark), but good sound	• Press MENU. Select ▣ and adjust Brightness, Contrast and Colour.
Good picture, but poor or no sound	• Press ◿ + . • If 🔇 is displayed on the screen, press 🔇 button.
No colour for colour programmes	• Open the cover of the remote control. Press →•← button.
Remote control does not function	• Replace the batteries.
Control Panel does not function	• Make sure Parental lock is Off.

Note: As with some other electrical appliances under certain circumstances there is potential for small electrostatic discharge to occur.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

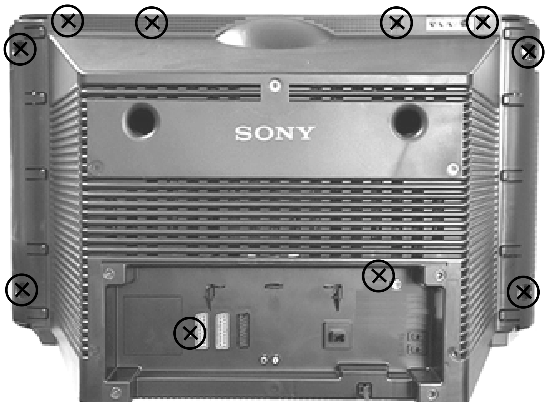
Channel Guide

TV System	Receivable Channels	Channel Display
B/G/H	E2 .. 12, 21 .. 69	C02 C03 C04 .. C12 C21 .. C69
TV Cable (1)	S1 .. 41	S01 S02 .. S41
TV Cable (2)	S01 .. S05, M1 .. M10, U1 .. U10	S42 .. S46 S01 .. S10 S11 .. S20
Italy	A B C D E F G H H1 H2, 21 .. 69	C13 C14 C15 C16 C17 C18 C19 C20 C11 C12, C21-C69
D/K	R01 .. R12, R21 .. R69	C01 .. C12 C21 .. C69
TV Cable (1)		S01 S02 .. S41
TV Cable (2)		S42 S43 .. S46
TV Cable	B .. Q*, S21 .. F41	S02, S03 .. S17, S21 .. S41
L	F2 .. F10 F21 .. F69	C01 .. C12, C21 .. C69
I	B21 .. B68	C21 .. C68

* If channels B..Q are available, the display S02-S17 will appear on the screen.

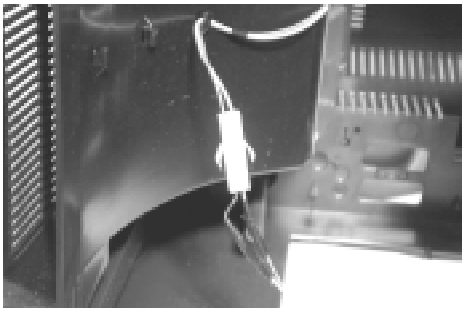
SECTION 2 DISASSEMBLY

2-1. Rear Cover Removal



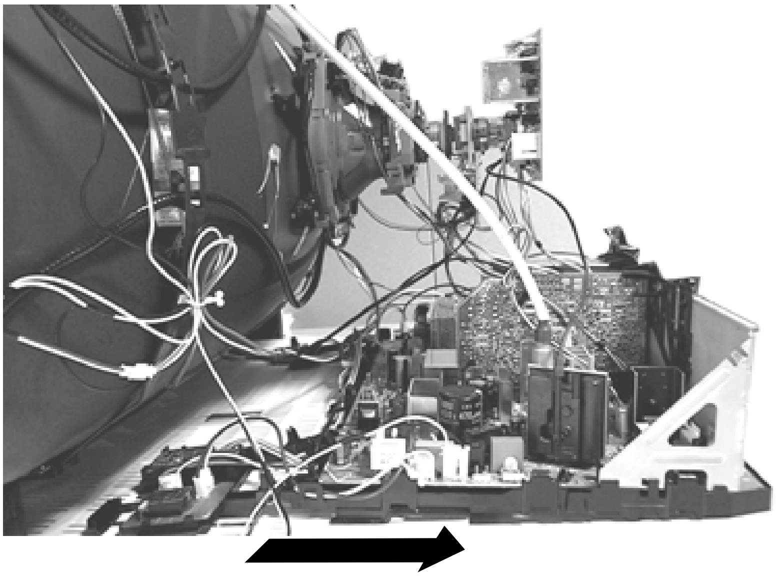
Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

2-2. Speaker Connector Disconnection

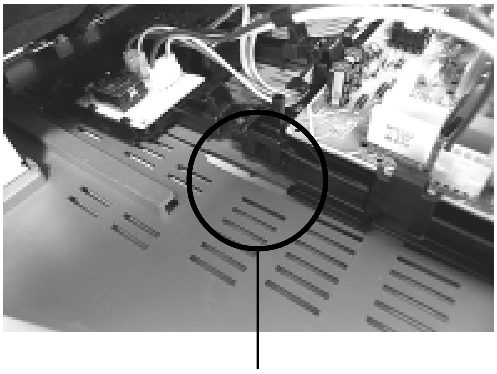


Before completely removing the rear cover disconnect the speaker connector.

2-3. Chassis Removal and Refitting

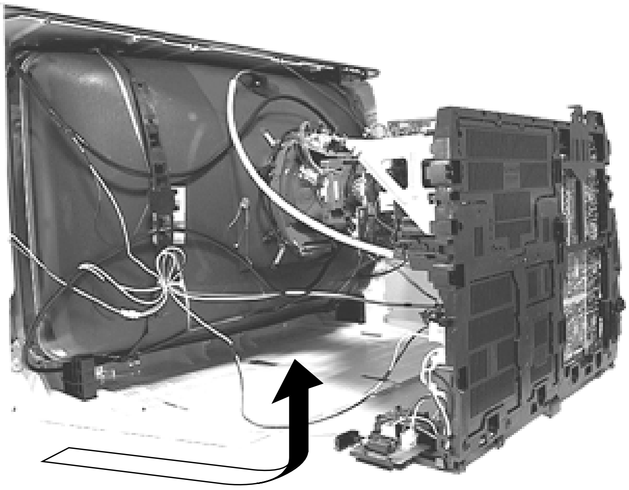


To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.



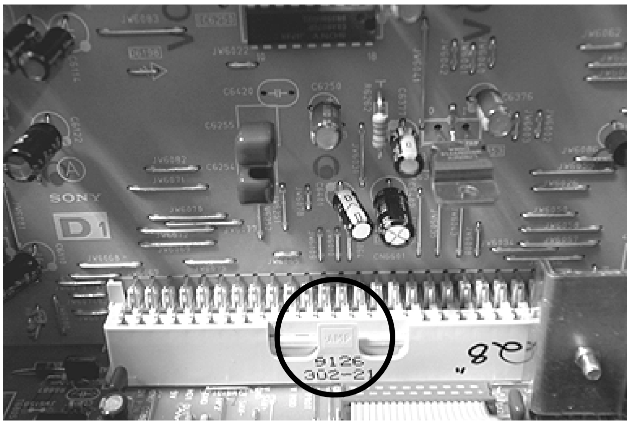
When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

2-4. Service Position



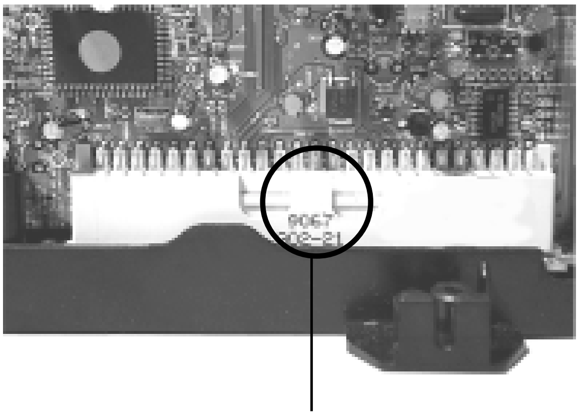
Position the PWB as indicated to access the solder side.
To gain access to the D Board follow the instructions on page 19. [Removal and Replacement of the main bracket bottom plates].

2-5. D1 Board Removal



To remove the D1 Board release the clip circled and gently remove the board in a vertical direction.

2-6. J Board Removal



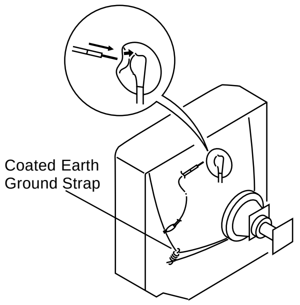
Release the clip and carefully remove the board in a vertical direction.

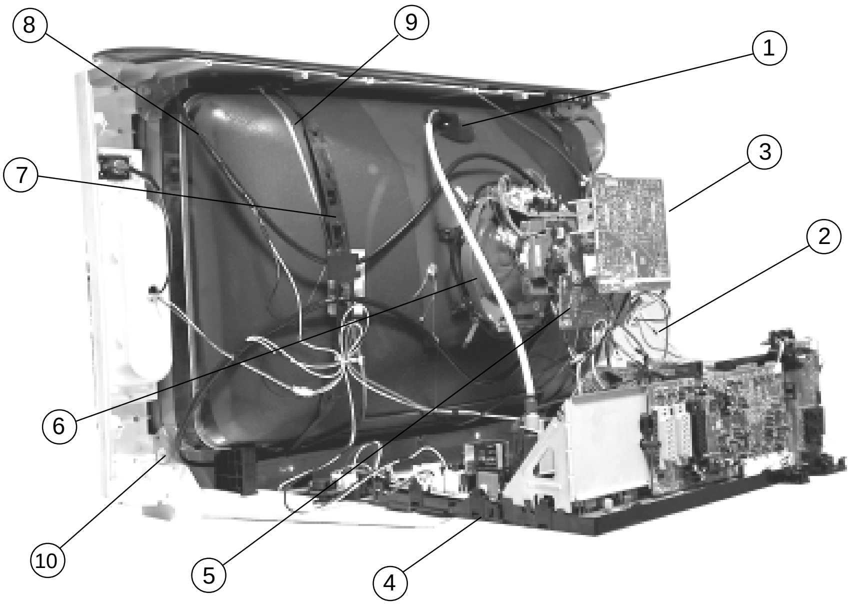
Note :
Removal of the B1, E, M, and U printed circuit boards follows the same procedure of releasing the securing clips as indicated in the figs for D1 and J board removal.
Take care not to apply to great a pressure to the clips as this may cause damage.

2-7. Picture Tube Removal

WARNING:
BEFORE REMOVING
THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT ***before*** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.

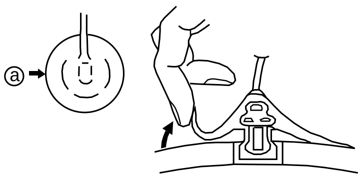




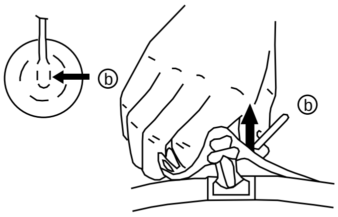
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tentioners.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT.
    [Take care not to handle the CRT by the neck.]

Removal of the Anode-Cap

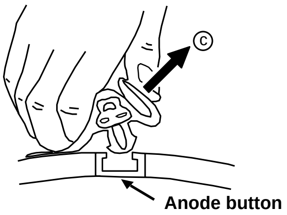
*** REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ



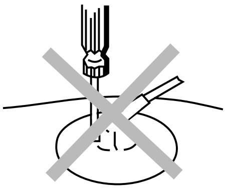
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

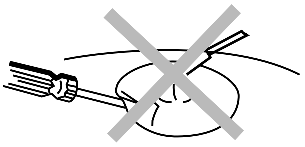


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
   Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.



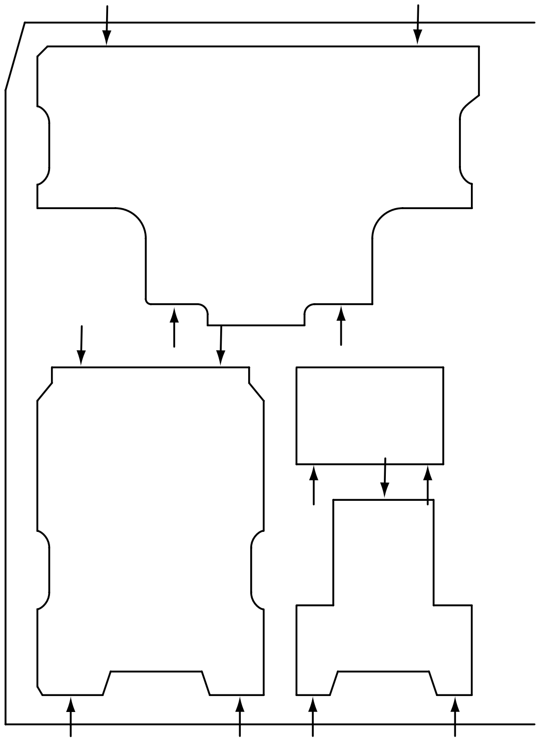


REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed.
This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

Note : There are 4 plates fitted to the main bracket and secured by 4 gates.
Only remove the necessary plate to gain access to the printed wiring board.

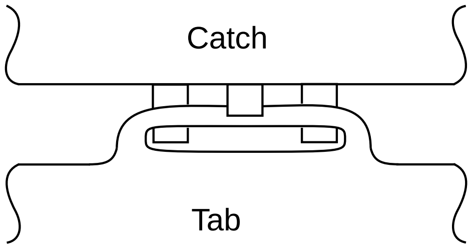


⚠ **For safety reasons, on no account should the plates be removed and not refitted after servicing.**

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.



SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

  Contrast .... normal

  Brightness .... normal

Carry out the adjustments in the following order :

3-1. Beam Landing.
3-2. Convergence.
3-3. Focus.
3-4. White Balance.

Note : Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

3-1. Beam Landing

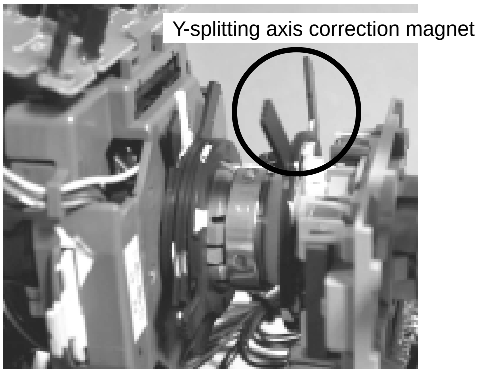
Preparation :

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

(1) Adjustment of Correction Magnet for Y-Splitting Axis.

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly.
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

Fig.3-1



Caution :

High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

(2) Landing

Note : Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-3].

1. Input an all-white signal from the pattern generator.
   Maximize the picture setting and adjust the Brightness setting.
2. Rough-adjust the focus and horizontal convergence.
3. Loosen the deflection yoke screws and align the purity adjustment knob to its central position. [See Fig.3-3].
4. Switch from the all-white pattern to an all-green pattern.
5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the centre and it aligns symmetrically [See Fig.3-4].
6. Move the deflection yoke forward and adjust so that the entire screen becomes green.
7. Switch the raster signal to red, then to blue and verify the landing condition.
8. When the position of the deflection yoke has been determined, fasten the deflection yoke with its fixing screw.
9. If the beam does not land correctly in all the corners of the screen, use magnets to correct it.

Fig.3-2

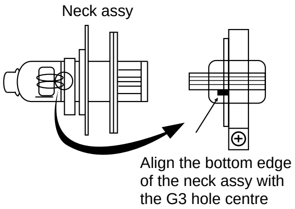
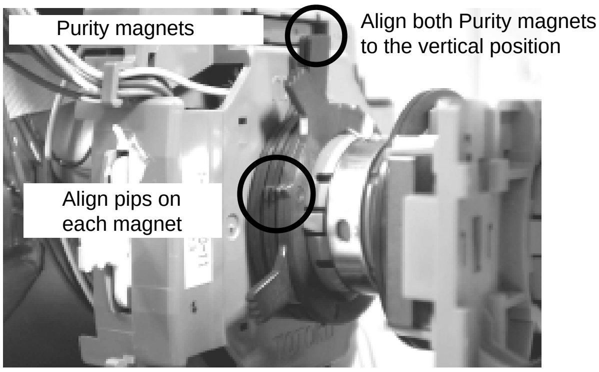

Neck assy
Align the bottom edge of the neck assy with the G3 hole centre

Fig.3-3


Purity magnets
Align both Purity magnets to the vertical position
Align pips on each magnet

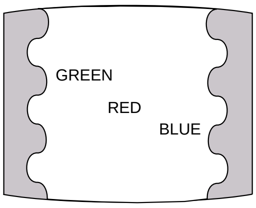
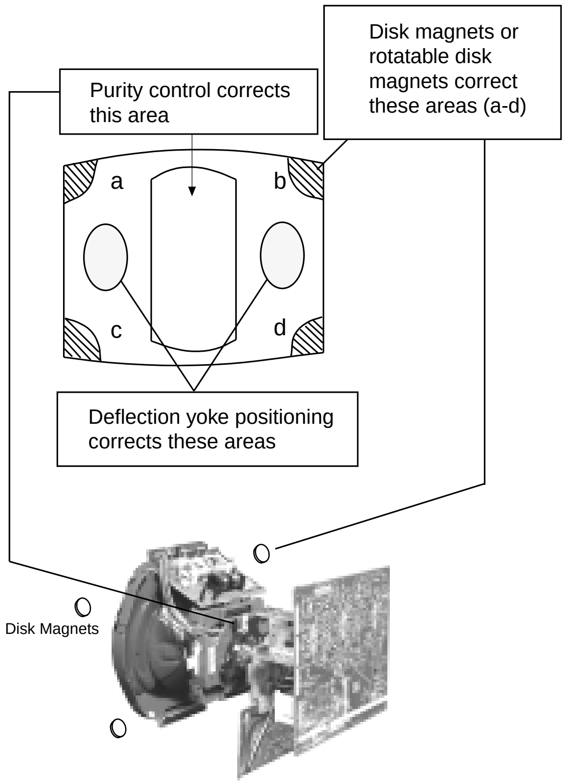
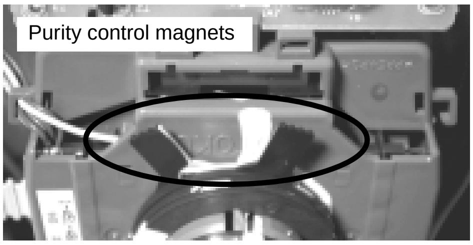

GREEN
RED
BLUE

Fig.3-4

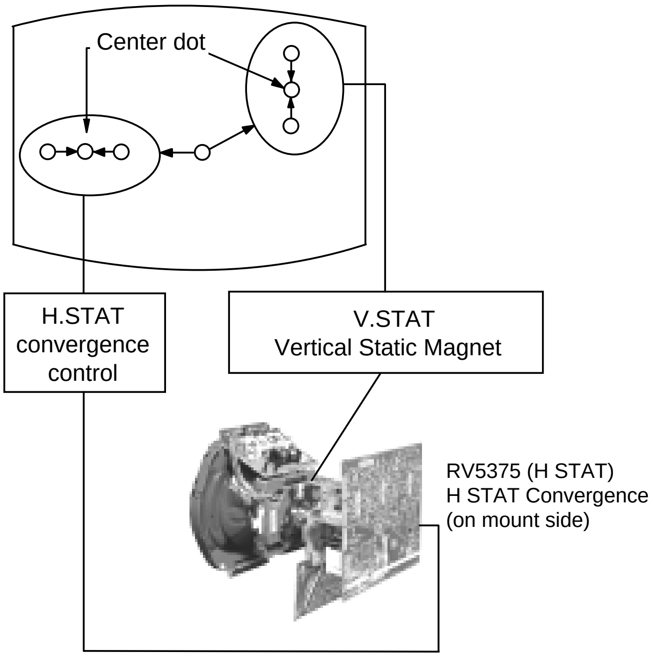

Purity control corrects this area
Disk magnets or rotatable disk magnets correct these areas (a-d)
a
b
c
d
Deflection yoke positioning corrects these areas
Disk Magnets


Purity control magnets

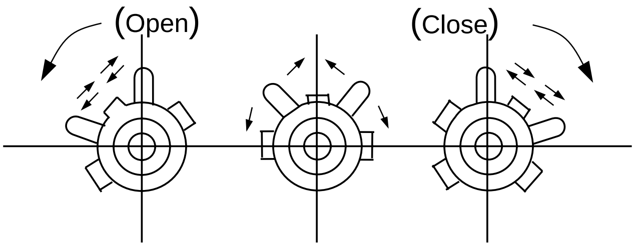
3-2. Convergence

(1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving horizontally], adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the centre of the screen.
4. [Moving horizontally], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

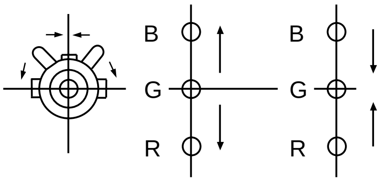

Center dot
H.STAT convergence control
V.STAT Vertical Static Magnet
RV5375 (H STAT)
H STAT Convergence
(on mount side)

- If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence whilst tracking.
  [Adjust the convergence by tilting the V.STAT convergence or by opening and closing the V.STAT convergence.]

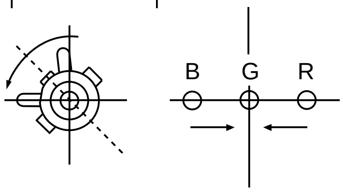


4. Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.

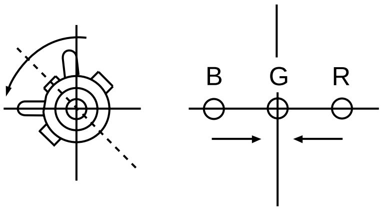
a). By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



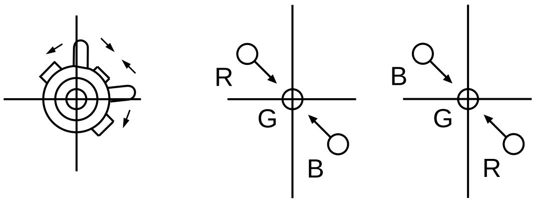
b). By rotating the V.STAT magnet counter clockwise, the red, green and blue dots move as indicated.



c). By rotating the V.STAT magnet clockwise, the red, green and blue dots move in the direction indicated below.



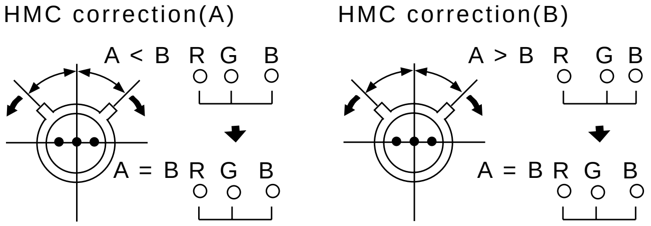
d). By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



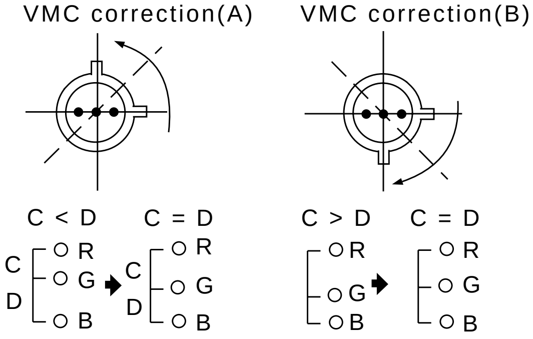
Note : If the blue dot does not coincide with the red and green points, correct the points by using the BMC [Hexapole] magnet.

5. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

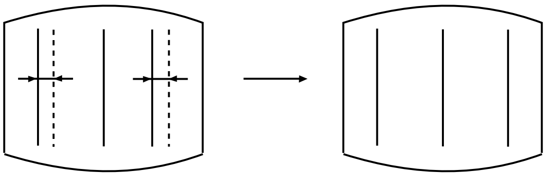
a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.


HMC correction(A)
A < B
R G B
A = B
R G B
HMC correction(B)
A > B
R G B
A = B
R G B

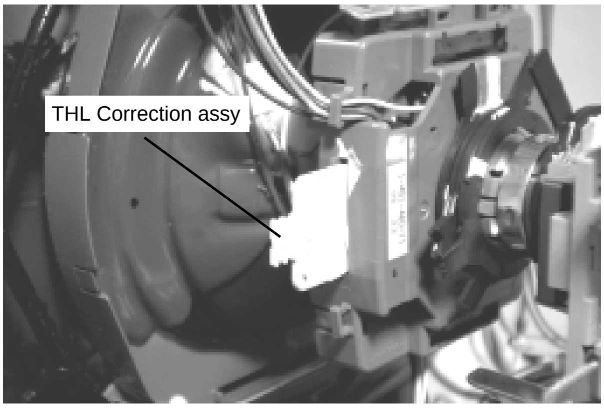
b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.


VMC correction(A)
VMC correction(B)
C < D
C = D
C
D
R
G
B
C > D
C = D
R
G
B

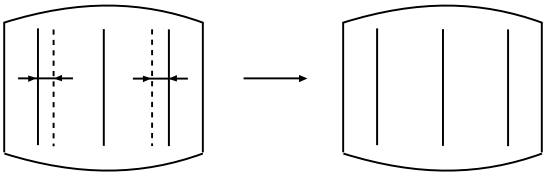
HAMP



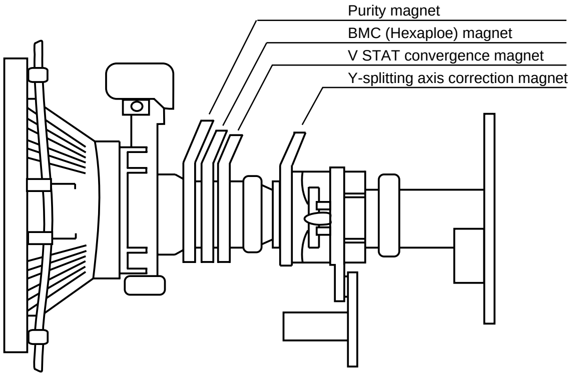
7. HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.


THL Correction assy

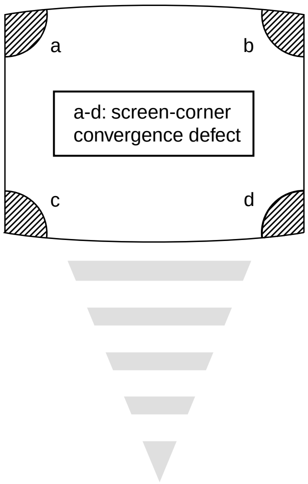
HTIL

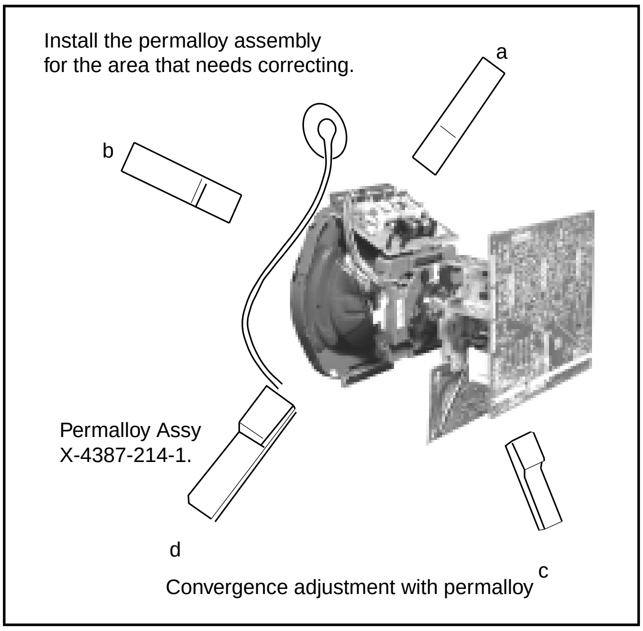


Layout of each control



Note : If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.

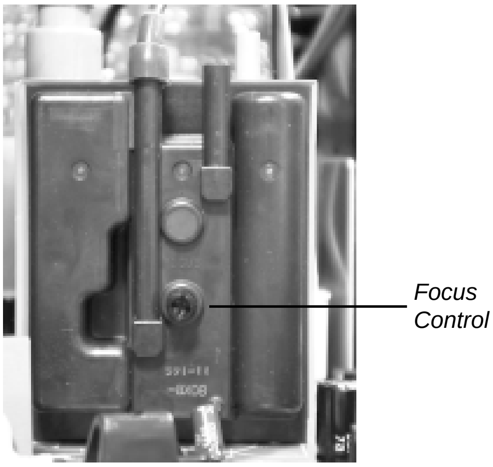



Install the permalloy assembly for the area that needs correcting.

Convergence adjustment with permalloy

3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

G2 adjustment [RV5376]

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 175V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control RV5376 [SCREEN] located on the C Board to the point just before the flyback return lines disappear.

White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Enter into the ‘Service Mode’ by pressing ‘TEST’, ‘TEST’ and ‘MENU’ ‘MENU’ on the Service Commander.
3. Select ‘Backend’ from the on screen menu display and press ‘OK’.
4. The ‘Backend’ menu will appear on the screen.[See Page 26]
5. Set the ‘Contrast’ to MAX.
6. Set the ‘R-Drive’ to 41.
7. Adjust the ‘G-Drive’ and the ‘B-Drive’ so that the white balance becomes optimum.
8. Press the ‘OK’ button to write the data for each item.
9. Set the ‘Contrast’ to MIN.
10. Set the ‘R-Cutoff’ to 31.
11. Adjust the ‘G-Cutoff’, and the ‘B-Cutoff’ with the left and right buttons on the remote commander so that the white balance becomes optimum.
12. Press the ‘OK’ button to write the data for each item.

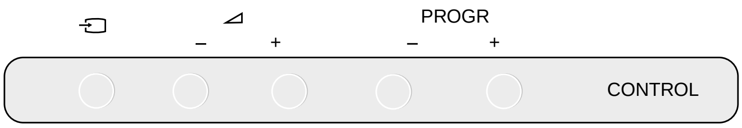
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. Electrical Adjustments

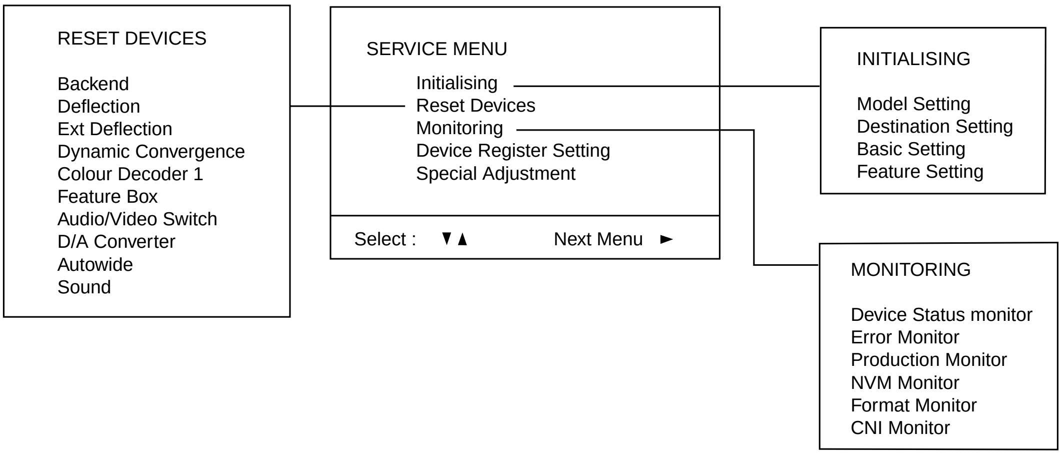
Service adjustments to this model can be performed using the supplied Remote Commander RM-892.

How to enter into the Service Mode

1. Turn on the main power switch of the set while pressing PROG + (plus) and PROG - (minus) buttons on the top control panel.


PROGR
–
+
–
+
CONTROL

2. 'TT' will appear in the upper right corner of the screen.
3. Press the 'MENU' button twice on the remote commander to obtain the service menu on the screen.


RESET DEVICES
Backend
Deflection
Ext Deflection
Dynamic Convergence
Colour Decoder 1
Feature Box
Audio/Video Switch
D/A Converter
Autowide
Sound
SERVICE MENU
Initialising
Reset Devices
Monitoring
Device Register Setting
Special Adjustment
Select : ▼▲
Next Menu ►
INITIALISING
Model Setting
Destination Setting
Basic Setting
Feature Setting
MONITORING
Device Status monitor
Error Monitor
Production Monitor
NVM Monitor
Format Monitor
CNI Monitor

4. Push the joystick up or down on the remote commander to select the adjustment item.
5. Push the right button to proceed to the next menu.
6. If the required adjustment item is 'Deflection', push the down button to move to 'Deflection'.
7. Push the joystick to the right to enter into 'Deflection'.
8. Change the data in order to comply with each standard.

Note :

- Before performing any adjustments ensure that the correct model has been selected in the 'Model Setting' menu.
- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

Initialising Menu

Initialising

Model Setting
Destination Setting
Basic Setting
Feature Setting

Select : Next menu:

Model Setting

The menu contains a list with all the available models of this software to set up the TV set in an easy way. The selection of a model is setting data for its features and hardware resources which cannot detected by the automatic power on H/W detection as well as a special *model byte* to get an unique model identification for models which cannot be differed by features and hardware resources (e.g. KV-28FC60 and KV-28FC60Z)

Before data is set, the user will be asked if he really wants to set a new model. If the user agrees, automatically the destination setting menu is shown.

Model Setting

1	KV-29FX60	Reset
2	KV-29FC60	
3	KV-29FS60	
4	KV-28FX60	
5	KV-32FX60	
6	KV-32FS60	
7	KV-28FC60	
8	KV-32FC60	
9	KV-28FC60Z	
10	KV-32FC60Z	

BLACK = No Conformity
GREEN = Compatible Model
RED = Conformity for all data

Table.4-1

Indication of Model Compatibility.

Black:
If any data does not match to specific model, the model name is displayed in black.
Green:
All data which is checked by model setting menu concurs to model except model byte.
Red:
All data which is checked by model setting menu concurs to model including model byte.

Note:
After selecting a model, it may be necessary to reset some devices to get the correct data. (Treble/Bass Offset of Sound, deflection adjustments, ...)

Basic Setting

No	Descr	Min	Max	Data
1	Sys B/G	OFF	ON	ON
2	Sys D/K	OFF	ON	ON
3	Sys L	OFF	ON	ON
4	Sys I (UK)	OFF	ON	ON
5	Sys I (IRL)	OFF	ON	OFF
6	Russian Sound	OFF	ON	OFF
7	TXT Nat.Option	1	4	3
8	Simple PAT	OFF	ON	OFF
9	16:9 CRT	OFF	ON	ON
10	SubWoofer	OFF	ON	ON
11	Auto Stand-by	OFF	ON	ON
12	Comb-Filter	OFF	ON	ON
13	Auto YC Det	OFF	ON	ON
14	Auto Comb Det	OFF	ON	ON
15	AV2 Available	OFF	ON	ON
16	AV3 Available	OFF	ON	ON
17	AV4 Available	OFF	ON	OFF
18	AV3 Front & Rear	OFF	ON	ON
19	SECAM Tape	OFF	ON	ON
20	AV1 Sound Mute	OFF	ON	OFF

Table.4-2

Dynamic Convergence

No	Descr	Def	Min	Max	Data
1	Range	63	0	63	63
2	H Stat	33	0	63	33
3	H-Amp L	37	0	63	37
4	H-Amp R	36	0	63	36
5	Up Y	31	0	63	31
6	Low Y	33	0	63	33
7	Y up L	30	0	63	30
8	Y up R	30	0	63	30
9	Y low L	31	0	63	31
10	Y low R	30	0	63	30
11	M bow up L	31	0	63	31
12	M bow up R	32	0	63	32
13	M bow low L	32	0	63	32
14	M bow low R	32	0	63	32
15	V Stat	32	0	63	32
16	T Cor PCtrl	OFF	OFF	ON	OFF
17	Top Cor Pin	31	0	63	31
18	B Cor PCtrl	OFF	OFF	ON	ON
19	Bot Cor Pin	31	0	63	32

Table.4-3

Feature Setting

No	Descr	Def	Max	Data
1	EPG	OFF	ON	ON

Table.4-4

Backend

No	Descr	Def	Min	Max	Data
1	R-On	ON	OFF	ON	ON
2	G-On	ON	OFF	ON	ON
3	B-On	ON	OFF	ON	ON
4	D-Col	OFF	OFF	ON	OFF
5	Color-Axis	2	0	3	2
6	Contrast	44	0	63	44
7	Limit-Lvl	3	0	3	3
8	Hue	32	0	63	32
9	Colour	31	0	63	31
10	CTI-Level	2	0	3	2
11	Brightness	31	0	63	31
12	Gamma	3	0	3	3
13	Sharpness	44	0	63	41
14	R-Drive	41	0	63	41
15	G-Drive	41	0	63	33
16	B-Drive	41	0	63	24
17	ABL-Mode	0	0	3	0
18	Sub Bright	31	0	63	29
19	VM-Level	2	0	3	2
20	R-Cutoff	31	0	63	31
21	Pre/Over	2	0	3	2
22	G-Cutoff	31	0	63	16
23	DPIC-Level	1	0	3	1
24	B-Cutoff	31	0	63	30
25	DC-Tran	0	0	3	0
26	Sub-Cont	7	0	15	7
27	LRGB2-Lvl	8	0	15	8
28	P-Abl	15	0	15	15
29	Sharp FO	ON	OFF	ON	ON
30	Aging-W	OFF	OFF	ON	OFF
31	Aging-B	OFF	OFF	ON	OFF
32	CB-Offset1	7	0	15	7
33	CR-Offset1	7	0	15	7
34	CB-Offset2	7	0	15	7
36	Sub Colour	0	-8	8	-6

Table.4-5

Ext. Deflection

No	Descr	Def	Min	Max	Data
1	Linearity	128	0	255	128
2	H Centre	32	0	63	32
3	H Trap	32	0	63	32
4	Rotation	0	0	255	0

Table.4-6

Colour Decoder 1

No	Descr	Def	Min	Max	Data
1	Tint	31	0	63	31
2	P/N Gw	OFF	OFF	ON	OFF
3	P/N ID	OFF	OFF	ON	OFF
4	Sub Colour	7	0	15	7
5	Sub Contr	7	0	15	7
6	Sharp FO	1	0	3	1
7	Sharp EQ	2	0	3	2
8	Sharp Gain	8	0	15	8
9	Y-Out Lev	35	0	63	35
10	BS Point	0	0	3	0
11	C-Cut Lev	50	0	63	50
12	DC Rest	0	0	3	0
13	BPF FO	2	0	3	2
14	BPF Q	1	0	3	1
15	Filter Sw	OFF	OFF	ON	OFF
16	C-Trap Sw	OFF	OFF	ON	OFF
17	S-D Trap	ON	OFF	ON	ON
18	LPF	ON	OFF	ON	ON
19	Colour Sys	0	0	7	0
20	Y-DL	8	0	10	8
21	N-Comb	ON	OFF	ON	ON
22	Video Sel	0	0	15	0
23	RGB Sel	0	0	3	0
24	Halftone	OFF	OFF	ON	OFF
25	CbCr Mute	OFF	OFF	ON	OFF
26	CrOFF.1	7	0	15	7
27	CbOFF.1	7	0	15	7
28	CrOFF.2	7	0	15	7
29	CbOFF.2	7	0	15	7
30	VCD Freq	3	0	7	3
31	VCD Mode	0	0	3	0
32	AFC SENS	1	0	3	1
33	MVM	OFF	OFF	ON	OFF
34	S-R-Y Adj	7	0	15	7
35	S-B-Y Adj	2	0	15	2
36	BELL/HPF	2	0	3	2
37	BELL FO	OFF	OFF	ON	OFF
38	S-VID	OFF	OFF	ON	OFF
39	S-GP	0	0	3	0
40	S ID	OFF	OFF	ON	OFF
41	S-INHBT	OFF	OFF	ON	OFF
42	RGB1 ENB	OFF	OFF	ON	OFF
43	SETUP-SW	OFF	OFF	ON	OFF
44	KS-PH	1	0	1	1
45	S/N RATIO	3	0	3	3

Table.4-7

Feature High - End

No	Descr	Def	Min	Max	Data
1	Init	OFF	OFF	ON	OFF
2	HC-Direct	OFF	OFF	ON	OFF
3	Auto HCO	OFF	OFF	ON	OFF
4	Field-Freq	OFF	OFF	ON	OFF
5	Disp-Freq	0	0	3	0
6	Acqu-Freq	1	0	3	1
7	Still Pic	OFF	OFF	ON	OFF
8	Auto Movie	ON	OFF	ON	ON
9	Phase	ON	OFF	ON	ON
10	Movie	OFF	OFF	ON	OFF
11	Nature Mot	ON	OFF	ON	OFF
12	LFR Mode	ON	OFF	ON	ON
13	V-Zoom Sw	OFF	OFF	ON	OFF
14	Sat mode	OFF	OFF	ON	OFF
15	G-Mode	OFF	OFF	ON	OFF
16	S.D.A.F	ON	OFF	ON	ON
17	V-Zoom	0	0	15	0
18	No Feat Md	OFF	OFF	ON	OFF
19	Split Scr	0	0	3	0
20	Noise Reduc	1	0	3	1
21	Set Vd	OFF	OFF	ON	OFF
22	Set Hd	ON	OFF	ON	ON
23	Set Vdmsb	OFF	OFF	ON	OFF
24	Set Hdmsb	ON	OFF	ON	ON
25	Set Hddel	OFF	OFF	ON	OFF
26	Set Vwe2	OFF	OFF	ON	OFF
27	Set Hwe2	OFF	OFF	ON	OFF
28	St Hor Delay	OFF	OFF	ON	OFF
29	Ena Hwe Mdly	ON	OFF	ON	ON
30	Ena Outsel	OFF	OFF	ON	OFF
31	Set Nr	OFF	OFF	ON	OFF
32	EnaHreShft	ON	OFF	ON	ON
33	Vect.Ovl	OFF	OFF	ON	OFF
34	Set Nm	OFF	OFF	ON	OFF
35	F.S.F.M	OFF	OFF	ON	OFF
36	Enable Vwe	OFF	OFF	ON	OFF
37	Vwe	0	0	127	0
38	DispAdjVre	OFF	OFF	ON	OFF
39	V-Capture	OFF	OFF	ON	OFF
40	Panic mode	ON	OFF	ON	ON
41	Panic Ctrl	0	0	31	0
42	P3.5	OFF	OFF	ON	OFF
43	P3.4	OFF	OFF	ON	OFF
44	P1.5	OFF	OFF	ON	OFF
45	P1.3	OFF	OFF	ON	OFF
46	P1.4	OFF	OFF	ON	OFF
47	DisBlkAdj	OFF	OFF	ON	OFF
48	P2.7	OFF	OFF	ON	OFF
49	P2.6	OFF	OFF	ON	OFF
50	P2.5	OFF	OFF	ON	OFF
51	P2.4	OFF	OFF	ON	OFF
52	P2.3	OFF	OFF	ON	OFF
53	P2.2	OFF	OFF	ON	OFF
54	P2.1	OFF	OFF	ON	OFF
55	P2.0	OFF	OFF	ON	OFF
56	Hor Delays	0	0	255	0
57	Hwe2sta	0	0	255	0
58	Hwe2sto	0	0	255	0

Table.4-8

Feature High - End

No	Descr	Def	Min	Max	Data
59	Vwe2sta	28	0	255	28
60	Vwe2sto	47	0	255	47
61	Hddel	0	0	255	0
62	Hdmsb	0	0	255	0
63	Vdmsb	0	0	255	0
64	Hdsta	0	0	255	0
65	Hdsto	0	0	255	0
66	Vdsta	0	0	255	0
67	Vdsto	0	0	255	0
68	Hwe1Mdelay	35	0	255	44
69	Bad Limit	0	0	255	0
70	ReliaThres	0	0	255	0
71	Movie Min	10	0	255	10
72	VideoCTMax	50	0	255	50
73	Kstep01	0	0	255	0
74	Kstep23	0	0	255	0
75	Kstep45	0	0	255	0
76	Kstep67	0	0	255	0
77	Kfixed	0	0	255	0
78	Tfilter12	0	0	255	0
79	Def	0	0	255	0
80	PicPcs	0	0	3	0
81	HreShift	0	0	255	0

Table.4-9

Audio / Video Switch

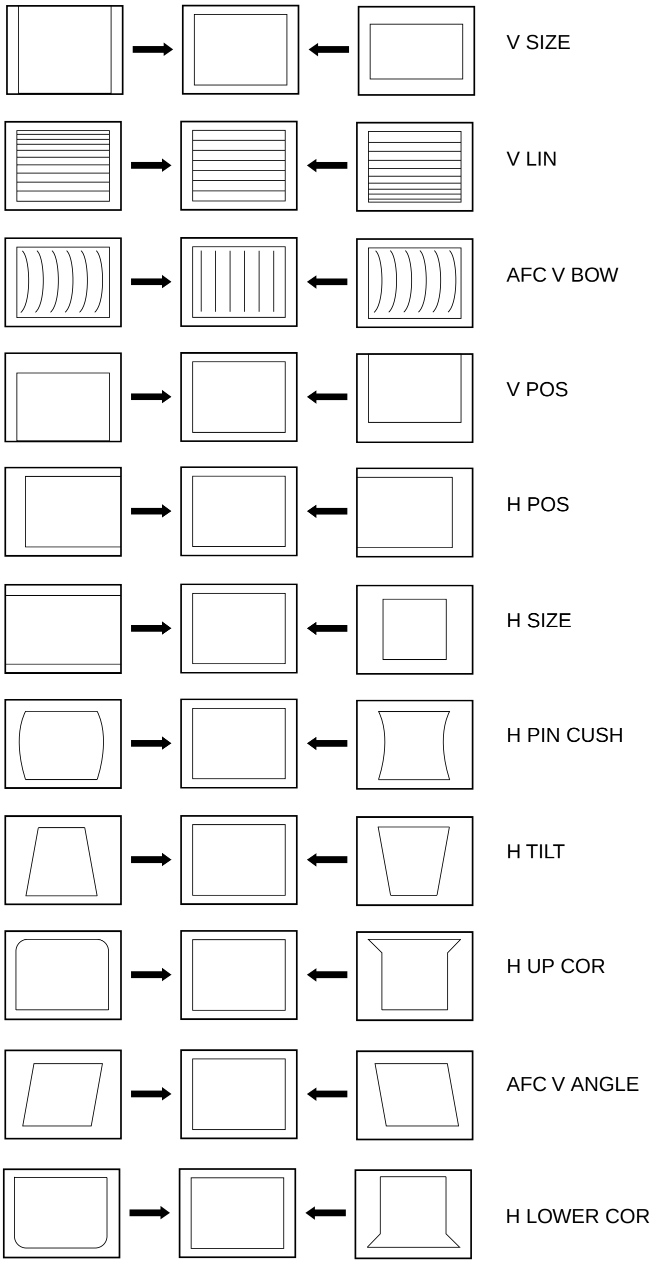
No	Descr	Def	Min	Max	Data
1	CVOUT1	0	0	7	0
2	CVOUT2	0	0	7	0
3	GD1 SW	OFF	OFF	ON	OFF
4	GD2 SW	OFF	OFF	ON	OFF
5	YCOUT 1	0	0	7	0
6	YCOUT 2	0	0	7	0
7	LO0CTRL	OFF	OFF	ON	OFF
8	LO1CTRL	OFF	OFF	ON	OFF
9	AOUT 1	1	0	7	1
10	AOUT 2	1	0	7	1
11	AOUT 3MUTE	OFF	OFF	ON	OFF
12	ZCD SW	ON	OFF	ON	ON
13	AOUT 3	1	0	7	0
14	GROUP	15	0	31	15
15	AOUT3 L/R	0	0	3	0
16	AOUT3VOLF	0	0	7	0
17	AOUT3VOLC	5	0	7	5

Table.4-10

Deflection

No	Descr	Def	Min	Max	Data
1	V-Size	31	0	63	42
2	V-Position	31	0	63	31
3	V-Comp	1	0	3	1
4	V-Linear	7	0	15	8
5	S-Corr	7	0	15	8
6	H-Size	31	0	63	55
7	EW-DC	OFF	OFF	ON	OFF
8	Akb Tim2	OFF	OFF	ON	OFF
9	Pin-Amp	31	0	63	43
10	H-Comp	0	0	3	0
11	Up-Cpin	31	0	63	31
12	M-Pin	2	0	3	2
13	Lo-CPin	31	0	63	38
14	Trapezium	7	0	15	4
15	H-Position	31	0	63	25
16	VblKw	0	0	3	0
17	AFC-Bow	7	0	15	6
18	AFC-Angle	7	0	15	8
19	Left-Blk	52	0	63	52
20	Right-Blk	11	0	63	11
21	V-Freerun	0	0	3	0
22	V-Aspect	0	0	63	0
23	Zoom-Sw	OFF	OFF	ON	OFF
24	U-Scan	OFF	OFF	ON	OFF
25	V-Scroll	31	0	63	31
26	Akb-Tim	2	0	3	2
27	Up-Vlin	0	0	15	0
28	Lo-Vlin	0	0	15	0
29	MPIP PAmp	-5	-10	10	-1
30	MPIPUCPin	0	-10	10	2
31	MPIPLCPin	0	-10	10	0
32	MPIP Trap	0	-10	10	1
33	EPG PAmp	-3	-10	10	-6
34	EPG UCPin	0	-10	10	-3
35	EPG LCPin	1	-10	10	-1
36	EPG Trap	0	-10	10	-1

Table.4-11



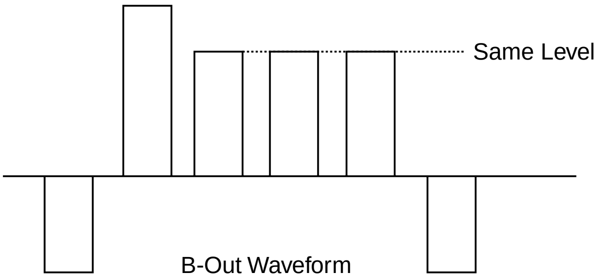
Deflection System Adjustment

1. Enter into the service mode and select ‘Deflection’ from the menu. The ‘Deflection’ adjustment menu will be displayed.
2. Select and adjust each item to obtain the optimum image.

4-2. Volume Electrical Adjustments

Sub Colour Adjustment

1. Input a PAL colour bar signal.
2. Connect an oscilloscope to CN5400 pin 5 located on the C Board.
3. Enter into the ‘Service Mode’.
4. Choose ‘Backend’ from the menu.
5. Adjust ‘Sub Colour’ data so that the right sides of the waveform are of equal height.



Sound					
No	Descr	Def	Min	Max	Data
1	Ref-Level	40	0	20	40
2	Auto-Gain	ON	OFF	ON	ON
3	Ana-In	0	0	1	0
4	Carr-Mute	ON	OFF	ON	ON
5	Clock Out	ON	OFF	ON	ON
6	AM-Gain	ON	OFF	ON	ON
7	Clip-Mode	0	0	2	0
8	SCART1VOL	79	0	127	79
9	SCART2VOL	79	0	127	79
10	SCART-Pr	27	0	127	27
11	I2S1-Pr	16	0	127	16
12	I2S2-Pr	16	0	127	16
13	FM Pr	27	0	127	27
14	BG Nic.Pr	53	0	127	53
15	L Nic.Pr	59	0	127	59
16	DK Nic Pr	53	0	127	53
17	I Nic Pr	97	0	127	97
18	Irl Nic Pr	97	0	127	97
19	AVC-Decay	2	0	8	2
20	SubW.Vol	-4	-127	0	-4
21	SubW.Freq	20	5	40	20
22	SubW.HPass	ON	OFF	ON	ON
23	Spat.Stre	127	0	-1	127
24	Spat.Coeff	0	0	8	0
25	Bass Offs	0	-3	3	0
26	Treble Offs	-1	-3	3	-1
27	Loudn.Offs	0	0	9	0
28	HP-VolOffs	-2	-5	5	-2
29	M-S Limit	30	-128	127	30
30	M-B Limit	-30	-128	127	-30
31	S-M Limit	12	-128	127	12
32	S-B Limit	-20	-128	127	-20
33	B-M Limit	-12	-128	127	-12
34	B-S Limit	20	-128	127	20
35	Err.Max	40	0	255	40
36	Err.Min	14	0	25	14
37	Vol.Offs	-4	-6	0	-4

Table.4-12

Special Adjustment				
No	Descr	Min	Max	Data
1	RGB Level	0	7	0
2	RGB Gain	0	31	8
3	RGB PAT Level	0	7	0
4	RGB PAT Gain	0	31	17
5	RGB H-Position	-10	10	1
6	Extra FW	0	255	255
7	EPG ChksCheck	OFF	ON	ON
8	Slicer High	OFF	ON	ON
9	FCW Wide	OFF	ON	OFF
10	High PLL	OFF	ON	OFF
11	Panic Offset	0	2	2
12	Wide Mute	OFF	ON	OFF
13	NTSC AUTO YC	OFF	ON	OFF
14	AVShp reduct	OFF	ON	OFF

Table.4-13

4-3. TEST MODE 2:

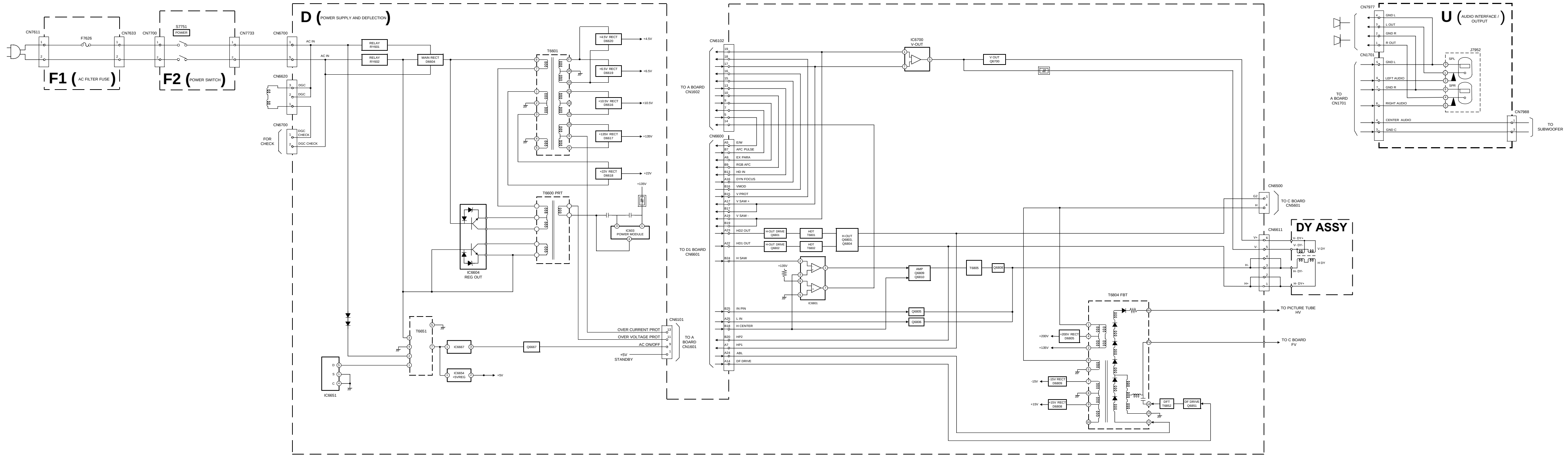
Is available by pressing the ‘TEST’ button twice, OSD ‘TT’ appears. The functions described below are available by selecting the two numbers. To release the ‘Test mode 2’, press 0, 10, 20 ... twice or switch the TV set into Stand-by mode. Pressing the two Local Control buttons (+ and -) during power ON will also switch into ‘TT’ mode.

In ‘TT’ mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

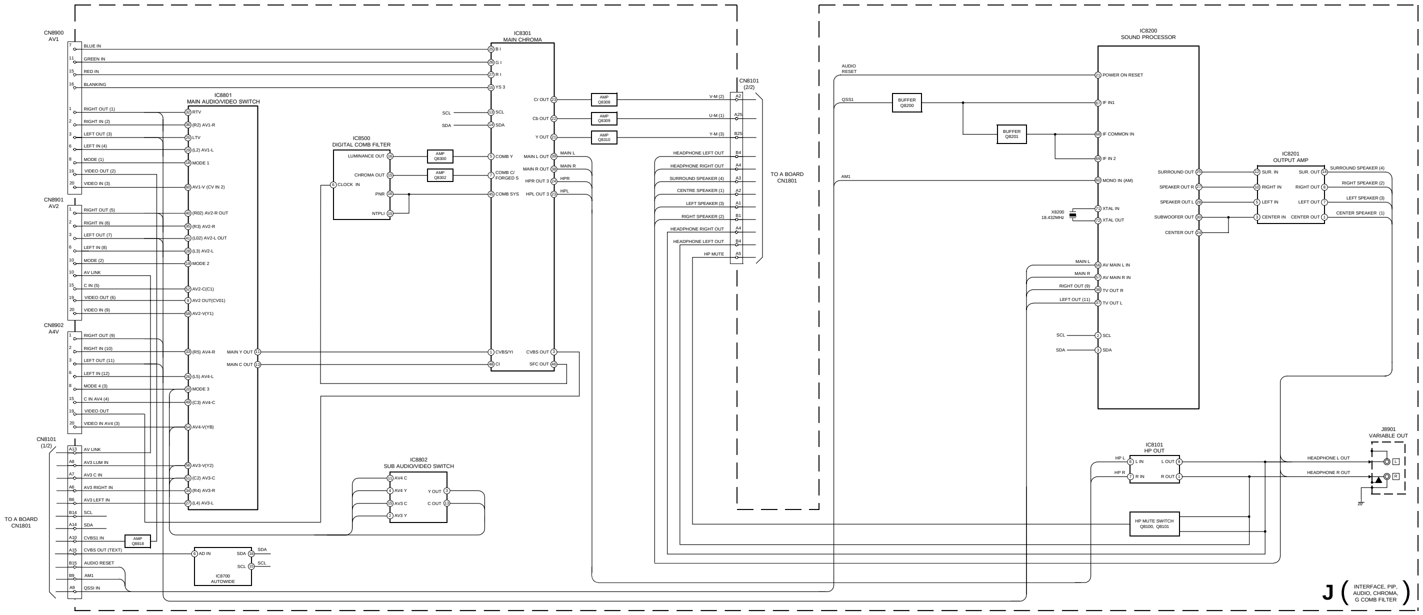
00	Switch back to normal mode - 'TT' mode off
01	Set picture maximum
02	Set picture minimum
03	Set speaker/headphone Volume to 30%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode
08	Shipping Condition
09	Language Reset
10	No function
11	Sub picture adjustment
12	Sub colour adjustment
13	Display software version and TV set configeration
14	Production Info Display
15	Picture Rotation
16	Picture level 50%
17	Audio mute on
18	No function
19	Sub brightness adjustment
20	No function
21	Destination A includes text settings, display TV status
22	Destination L includes text settings, display TV status
23	Destination E includes text settings, display TV status
24	Destination U includes text settings, display TV status
25	Destination D includes text settings, display TV status
26	Destination B includes text settings, display TV status
27	Destination K includes text settings, display TV status
28	Destination R includes text settings, display TV status
30	No function
31	Geometry Adjustment 1
32	Geometry Adjustment 2
33	Error monitor
34	No function
35	CRT 4:3 <> 16:9 ; Display TV status
36	Line 23 detection switch
37	Velocity Modulation (VM) test
38	No function
39	No function
40	No function

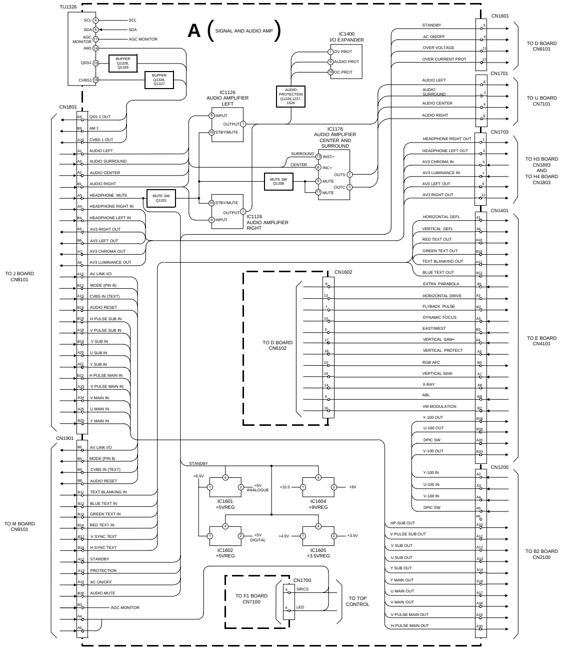
41	Screen mode check
42	Re-initialise geometry
43	No function
44	No function
45	No function
46	Reserved for dealer commander
47	Re-initialise NVM
48	Set NVM as non virgin
49	Set NVM as virgin
50	No function
51	Set Dolby volume to 90%
52	Dolby on left speaker only
53	Dolby on right speaker only
54	Dolby on left centre only
55	Dolby on surround speaker only
56 - 59	No function
60	No function
61	Service mode
62	Production mode
65	Reset error codes
68	Ignore error on
69	Ignore errors off
70	No function
71 - 72	No function
73	Clear programs
74 - 79	No function
80	No function
81	PAP H adjustment left image
82	PAP H adjustment right image
83 - 86	No function
87	Personal ID reset
88	Parental Lock off
89	No function
90	No function

5-1. BLOCK DIAGRAMS (1)

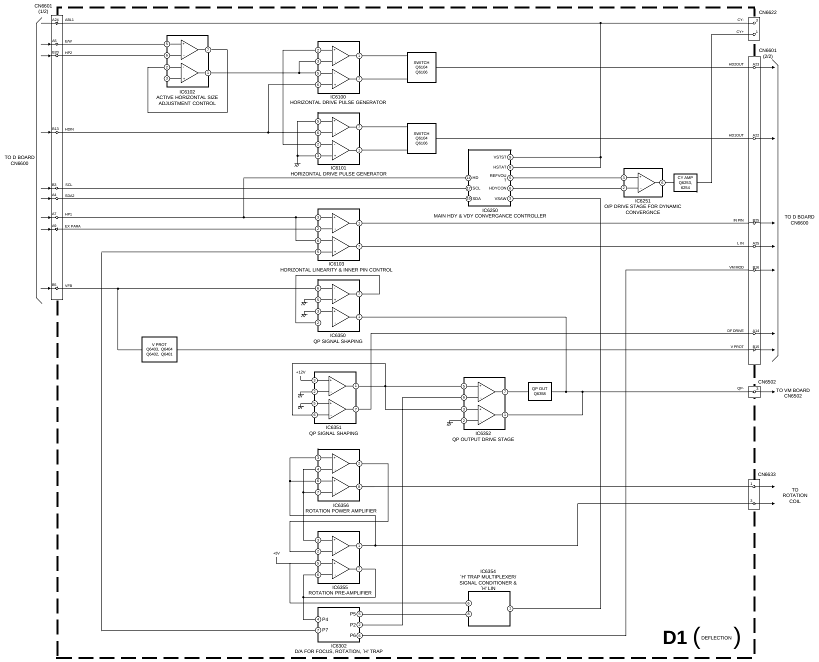

F1 (AC FILTER FUSE)
F2 (POWER SWITCH)
D (POWER SUPPLY AND DEFLECTION)
U (AUDIO INTERFACE / OUTPUT)
DY ASSY
CN7611
F7626
CN7633
CN7700
S7751
POWER
CN7733
CN6700
AC IN
AC IN
RELAY RY601
RELAY RY602
MAIN RECT D6604
CN6620
DGC
DGC
CN6700
DGC CHECK
DGC CHECK
FOR CHECK
T6601
+4.5V RECT D6620
+4.5V
+6.5V RECT D6619
+6.5V
+10.5V RECT D6616
+10.5V
+135V RECT D6617
+135V
+22V RECT D6618
+22V
+135V
T6600 PRT
IC603 POWER MODULE
IC6604 REG OUT
T6651
IC6651
D
S
C
IC6667
Q6667
IC6654 +5VREG
+5V
OVER CURRENT PROT
OVER VOLTAGE PROT
AC ON/OFF
+5V STANDBY
CN6101
TO A BOARD CN1601
CN6102
TO A BOARD CN1602
CN6600
TO D1 BOARD CN6601
E/W
AFC PULSE
EX PARA
RGB AFC
HD IN
DYN FOCUS
VMOD
V PROT
V SAW +
V SAW -
HD2 OUT
HD1 OUT
H SAW
IN PIN
L IN
H CENTER
HP2
HP1
ABL
DF DRIVE
IC6700 V-OUT
V OUT Q6700
H-OUT DRIVE Q6801
H-OUT DRIVE Q6802
HDT T6801
HDT T6802
H-OUT Q6803, Q6804
+135V
IC6801
AMP Q6809 Q6810
T6805
Q6808
Q6805
Q6806
T6804 FBT
+200V
+200V RECT D6805
+135V
-15V
-15V RECT D6809
+15V
+15V RECT D6808
DFT T6852
DF DRIVE Q6851
HV
FV
TO PICTURE TUBE HV
TO C BOARD FV
CN6500
G2
H
TO C BOARD CN5601
CN6611
V+
V-
H-
H+
V- DY+
V- DY-
V DY
H DY
H- DY-
H- DY+
CN7977
GND L
L OUT
GND R
R OUT
CN1701
GND L
LEFT AUDIO
GND R
RIGHT AUDIO
CENTER AUDIO
GND C
TO A BOARD CN1701
J7952
SPL
SPR
CN7988
TO SUBWOOFER

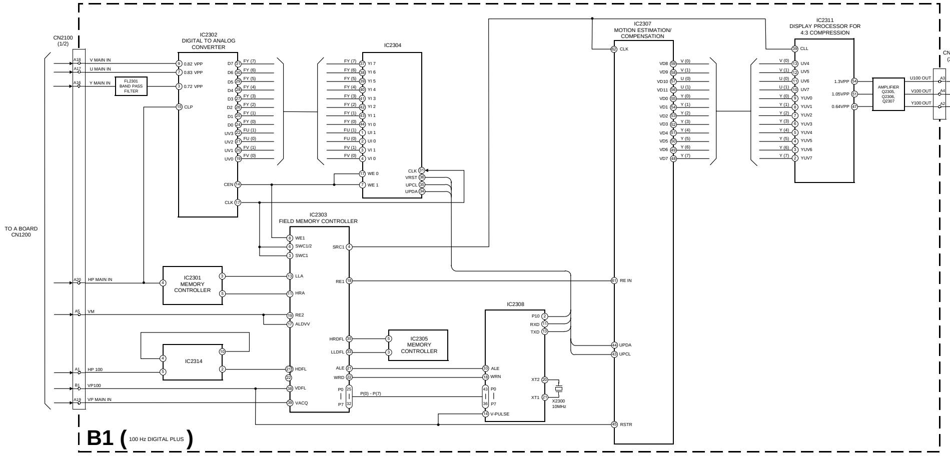
5-1. BLOCK DIAGRAMS (2)

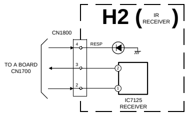

CN8900
AV1
BLUE IN
GREEN IN
RED IN
BLANKING
RIGHT OUT (1)
RIGHT IN (2)
LEFT OUT (3)
LEFT IN (4)
MODE (1)
VIDEO OUT (2)
VIDEO IN (3)
CN8901
AV2
RIGHT OUT (5)
RIGHT IN (6)
LEFT OUT (7)
LEFT IN (8)
MODE (2)
AV LINK
C IN (5)
VIDEO OUT (6)
VIDEO IN (9)
CN8902
A4V
RIGHT OUT (9)
RIGHT IN (10)
LEFT OUT (11)
LEFT IN (12)
MODE 4 (3)
C IN AV4 (4)
VIDEO OUT
VIDEO IN AV4 (3)
CN8101
(1/2)
AV LINK
AV3 LUM IN
AV3 C IN
AV3 RIGHT IN
AV3 LEFT IN
SCL
SDA
CVBS1 IN
CVBS OUT (TEXT)
AUDIO RESET
AM1
QSSI IN
TO A BOARD
CN1801
AMP
Q8818
IC8801
MAIN AUDIO/VIDEO SWITCH
RTV
(R2) AV1-R
LTV
(L2) AV1-L
MODE 1
AV1-V (CV IN 2)
(R02) AV2-R OUT
(R3) AV2-R
(L02) AV2-L OUT
(L3) AV2-L
MODE 2
AV2-C(C1)
AV2 OUT(CV01)
AV2-V(Y1)
(R5) AV4-R
(L5) AV4-L
MODE 3
(C3) AV4-C
AV4-V(YB)
AV3-V(Y2)
(C2) AV3-C
(R4) AV3-R
(L4) AV3-L
MAIN Y OUT
MAIN C OUT
IC8500
DIGITAL COMB FILTER
LUMINANCE OUT
CHROMA OUT
CLOCK IN
PNR
NTPLI
AMP
Q8300
AMP
Q8302
IC8301
MAIN CHROMA
B I
G I
R I
YS 3
SCL
SDA
COMB Y
COMB C/
FORGED S
COMB SYS
CVBS/YI
CI
Cr OUT
Cb OUT
Y OUT
MAIN L OUT
MAIN R OUT
HPR OUT 3
HPL OUT 3
CVBS OUT
SFC OUT
MAIN L
MAIN R
HPR
HPL
AMP
Q8308
AMP
Q8309
AMP
Q8310
V-M (2)
U-M (1)
Y-M (3)
HEADPHONE LEFT OUT
HEADPHONE RIGHT OUT
SURROUND SPEAKER (4)
CENTRE SPEAKER (1)
LEFT SPEAKER (3)
RIGHT SPEAKER (2)
HEADPHONE RIGHT OUT
HEADPHONE LEFT OUT
HP MUTE
CN8101
(2/2)
TO A BOARD
CN1801
IC8802
SUB AUDIO/VIDEO SWITCH
AV4 C
AV4 Y
AV3 C
AV3 Y
Y OUT
C OUT
IC8700
AUTOWIDE
AD IN
SDA
SCL
AUDIO
RESET
QSS1
AM1
BUFFER
Q8200
BUFFER
Q8201
IC8200
SOUND PROCESSOR
POWER ON RESET
IF IN1
IF COMMON IN
IF IN 2
MONO IN (AM)
XTAL IN
XTAL OUT
X8200
18.432MHz
AV MAIN L IN
AV MAIN R IN
TV OUT R
TV OUT L
RIGHT OUT (9)
LEFT OUT (11)
SURROUND OUT
SPEAKER OUT R
SPEAKER OUT L
SUBWOOFER OUT
CENTER OUT
IC8201
OUTPUT AMP
SUR. IN
RIGHT IN
LEFT IN
CENTER IN
SUR. OUT
RIGHT OUT
LEFT OUT
CENTER OUT
SURROUND SPEAKER (4)
RIGHT SPEAKER (2)
LEFT SPEAKER (3)
CENTER SPEAKER (1)
IC8101
HP OUT
HP L
HP R
L IN
R IN
L OUT
R OUT
HP MUTE SWITCH
Q8100, Q8101
HEADPHONE L OUT
HEADPHONE R OUT
J8901
VARIABLE OUT
L
R
J
INTERFACE, PIP,
AUDIO, CHROMA,
G COMB FILTER

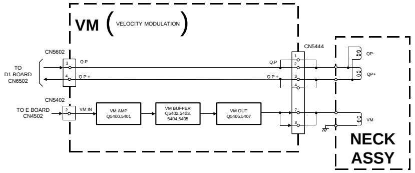

A
SIGNAL AND AUDIO AMP
TU1326
SCL
SDA
AGC MONITOR
AM1
QSS1
CVBS1
BUFFER
Q1328,
Q1329
BUFFER
Q1326,
Q1327
CN1801
QSS 1 OUT
AM 1
CVBS 1 OUT
AUDIO LEFT
AUDIO SURROUND
AUDIO CENTER
AUDIO RIGHT
HEADPHONE MUTE
HEADPHONE RIGHT IN
HEADPHONE LEFT IN
AV3 RIGHT OUT
AV3 LEFT OUT
AV3 CHROMA OUT
AV3 LUMINANCE OUT
AV LINK I/O
MODE (PIN B)
CVBS IN (TEXT)
AUDIO RESET
H PULSE SUB IN
V PULSE SUB IN
V SUB IN
U SUB IN
Y SUB IN
H PULSE MAIN IN
V PULSE MAIN IN
V MAIN IN
U MAIN IN
Y MAIN IN
TO J BOARD
CN8101
CN1901
AV LINK I/O
MODE (PIN 8)
CVBS IN (TEXT)
AUDIO RESET
TEXT BLANKING IN
BLUE TEXT IN
GREEN TEXT IN
RED TEXT IN
V SYNC TEXT
H SYNC TEXT
STANDBY
PROTECTION
AC ON/OFF
AUDIO MUTE
AGC MONITOR
TO M BOARD
CN9101
IC1126
AUDIO AMPLIFIER
LEFT
INPUT
OUTPUT
STBY/MUTE
IC1126
AUDIO AMPLIFIER
RIGHT
MUTE SW
Q1201
MUTE SW
Q1208
AUDIO
PROTECTION
Q1226,1227,
1626
IC1400
I/O EXPANDER
OV PROT
AUDIO PROT
OC PROT
IC1176
AUDIO AMPLIFIER
CENTER AND
SURROUND
SURROUND
CENTER
INST+
INC+
MUTE
OUTS
OUTC
CN1601
STANDBY
AC ON/OFF
OVER VOLTAGE
OVER CURRENT PROT
TO D BOARD
CN6101
CN1701
AUDIO LEFT
AUDIO
SURROUND
AUDIO CENTER
AUDIO RIGHT
TO U BOARD
CN7101
CN1703
HEADPHONE RIGHT OUT
HEADPHONE LEFT OUT
AV3 CHROMA IN
AV3 LUMINANCE IN
AV3 LEFT OUT
AV3 RIGHT OUT
TO H3 BOARD
CN1893
AND
TO H4 BOARD
CN1803
CN1401
HORIZONTAL DEFL
VERTICAL DEFL
RED TEXT OUT
GREEN TEXT OUT
TEXT BLANKING OUT
BLUE TEXT OUT
EXTRA PARABOLA
HORIZONTAL DRIVE
FLYBACK PULSE
DYNAMIC FOCUS
EAST/WEST
VERTICAL SAW+
VERTICAL PROTECT
RGB AFC
VERTICAL SAW-
X-RAY
ABL
VM MODULATION
Y-100 OUT
U-100 OUT
DPIC SW
V-100 OUT
TO E BOARD
CN4101
CN1602
TO D BOARD
CN6102
CN1200
Y-100 IN
U-100 IN
V-100 IN
DPIC SW
HP-SUB OUT
V-PULSE SUB OUT
V SUB OUT
U SUB OUT
Y SUB OUT
Y MAIN OUT
U MAIN OUT
V MAIN OUT
V-PULSE MAIN OUT
H-PULSE MAIN OUT
TO B2 BOARD
CN2100
STANDBY
+6.5V
+5V
ANALOGUE
IC1601
+5VREG
+10.5
+9V
IC1604
+9VREG
+5V
DIGITAL
IC1602
+5VREG
+4.5V
+3.5V
IC1605
+3.5VREG
TO F1 BOARD
CN7100
CN1700
SIRCS
LED
TO TOP
CONTROL

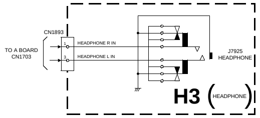
5-1. BLOCK DIAGRAMS (3)

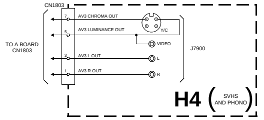

CN6601 (1/2)
TO D BOARD CN6600
ABL1
E/W
HP2
HDIN
SCL
SDA2
HP1
EX PARA
VFB
IC6102 ACTIVE HORIZONTAL SIZE ADJUSTMENT CONTROL
IC6100 HORIZONTAL DRIVE PULSE GENERATOR
IC6101 HORIZONTAL DRIVE PULSE GENERATOR
SWITCH Q6104 Q6106
IC6250 MAIN HDY & VDY CONVERGANCE CONTROLLER
HD
SCL
SDA
VSTST
HSTAT
REFVOUT
HDYCON
VSAW
IC6251 O/P DRIVE STAGE FOR DYNAMIC CONVERGNCE
CY AMP Q6253, 6254
IC6103 HORIZONTAL LINEARITY & INNER PIN CONTROL
IC6350 QP SIGNAL SHAPING
V PROT Q6403, Q6404 Q6402, Q6401
+12V
IC6351 QP SIGNAL SHAPING
IC6352 QP OUTPUT DRIVE STAGE
QP OUT Q6358
IC6356 ROTATION POWER AMPLIFIER
+5V
IC6355 ROTATION PRE-AMPLIFIER
IC6354 `H' TRAP MULTIPLEXER/ SIGNAL CONDITIONER & `H' LIN
IC6302 D/A FOR FOCUS, ROTATION, `H' TRAP
P4
P7
P5
P2
P6
CN6622
CY-
CY+
CN6601 (2/2)
HD2OUT
HD1OUT
IN PIN
L IN
VM MOD
DF DRIVE
V PROT
TO D BOARD CN6600
CN6502
QP-
TO VM BOARD CN6502
CN6633
TO ROTATION COIL
D1 (DEFLECTION)


CN2100 (1/2)
TO A BOARD CN1200
V MAIN IN
U MAIN IN
Y MAIN IN
FL2301 BAND PASS FILTER
HP MAIN IN
VM
HP 100
VP100
VP MAIN IN
IC2302 DIGITAL TO ANALOG CONVERTER
0.82 VPP
0.83 VPP
0.72 VPP
CLP
CEN
CLK
IC2304
WE 0
WE 1
CLK
VRST
UPCL
UPDA
IC2303 FIELD MEMORY CONTROLLER
WE1
SWC1/2
SWC1
LLA
HRA
RE2
ALDVV
HDFL
VDFL
VACQ
SRC1
RE1
HRDFL
LLDFL
ALE
WRD
P0
P7
P(0) - P(7)
IC2301 MEMORY CONTROLLER
IC2314
IC2305 MEMORY CONTROLLER
IC2308
P10
RXD
TXD
ALE
WRN
V-PULSE
XT2
XT1
X2300 10MHz
IC2307 MOTION ESTIMATION/ COMPENSATION
CLK
RE IN
UPDA
UPCL
RSTR
IC2311 DISPLAY PROCESSOR FOR 4:3 COMPRESSION
CLL
1.3VPP
1.05VPP
0.64VPP
AMPLIFIER Q2305, Q2306, Q2307
U100 OUT
V100 OUT
Y100 OUT
CN2100 (2/2)
TO A BOARD CN1200
B1 (100 Hz DIGITAL PLUS)

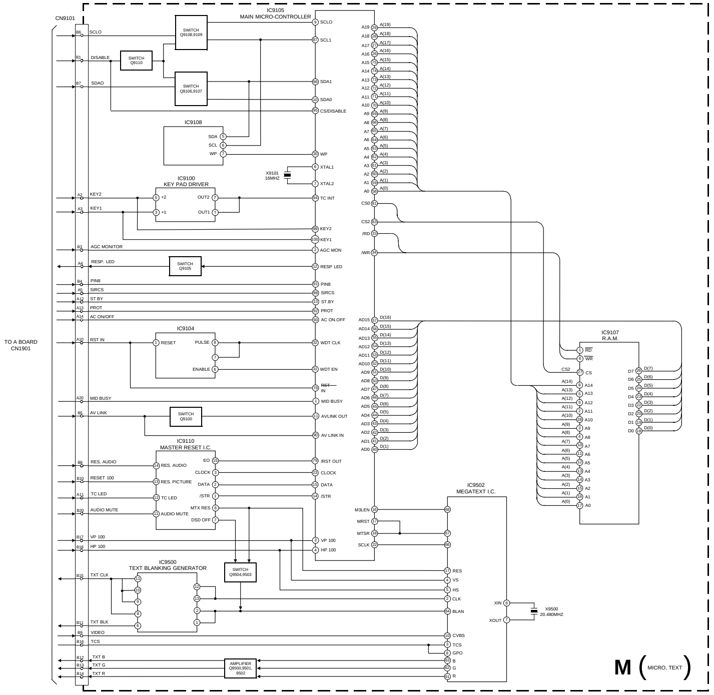

H2 (IR RECEIVER)
CN1800
TO A BOARD CN1700
RESP
IC7125 RECEIVER


VM (VELOCITY MODULATION)
CN5602
TO D1 BOARD CN6502
Q.P
Q.P +
CN5402
TO E BOARD CN4502
VM IN
VM AMP Q5400,5401
VM BUFFER Q5402,5403, 5404,5405
VM OUT Q5406,5407
CN5444
QP-
QP+
VM
NECK ASSY

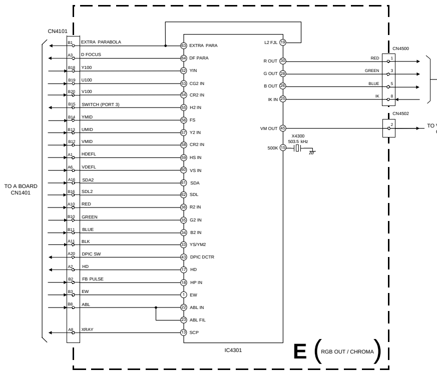

CN1893
TO A BOARD CN1703
HEADPHONE R IN
HEADPHONE L IN
J7925 HEADPHONE
H3 (HEADPHONE)


CN1803
TO A BOARD CN1803
AV3 CHROMA OUT
AV3 LUMINANCE OUT
AV3 L OUT
AV3 R OUT
Y/C
VIDEO
L
R
J7900
H4 (SVHS AND PHONO)

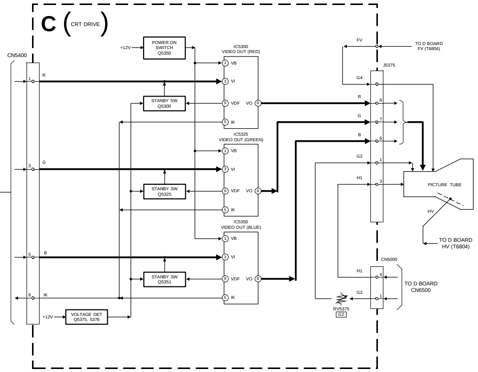
5-1. BLOCK DIAGRAMS (4)



M (MICRO, TEXT)
CN9101
TO A BOARD CN1901
IC9105 MAIN MICRO-CONTROLLER
SWITCH Q9108,9109
SWITCH Q9110
SWITCH Q9106,9107
IC9108
IC9100 KEY PAD DRIVER
SWITCH Q9105
IC9104
SWITCH Q9100
IC9110 MASTER RESET I.C.
IC9500 TEXT BLANKING GENERATOR
SWITCH Q9504,9502
AMPLIFIER Q9500,9501,9502
IC9502 MEGATEXT I.C.
IC9107 R.A.M.
X9101 16MHz
X9500 20.480MHz
SCLO
DISABLE
SDAO
KEY2
KEY1
AGC MONITOR
RESP. LED
PIN8
SIRCS
ST BY
PROT
AC ON/OFF
RST IN
MID BUSY
AV LINK
RES. AUDIO
RESET 100
TC LED
AUDIO MUTE
VP 100
HP 100
TXT CLK
TXT BLK
VIDEO
TCS
TXT B
TXT G
TXT R

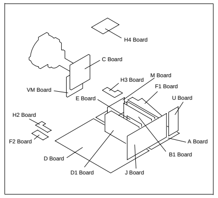


E (RGB OUT / CHROMA)
CN4101
TO A BOARD CN1401
IC4301
CN4500
CN4502
TO VM BOARD CN5402
X4300 503.5 KHz
EXTRA PARABOLA
D FOCUS
Y100
U100
V100
SWITCH (PORT 3)
YIMID
UMID
VMID
HDEFL
VDEFL
SDA2
SDL2
RED
GREEN
BLUE
BLK
OPIC SW
HD
FB PULSE
EW
ABL
XRAY



C (CRT DRIVE)
CN5400
POWER ON SWITCH Q5350
IC5300 VIDEO OUT (RED)
IC5320 VIDEO OUT (GREEN)
IC5350 VIDEO OUT (BLUE)
STANBY SW Q5300
STANBY SW Q5325
STANBY SW Q5351
VOLTAGE DET Q5375, 5376
+12V
TO D BOARD FV (T6804)
TO D BOARD HV (T6804)
TO D BOARD CN6500
CN5000
J5375
PICTURE TUBE
RV5375

5-2. CIRCUIT BOARD LOCATION



H4 Board
C Board
H3 Board
M Board
F1 Board
VM Board
E Board
U Board
H2 Board
F2 Board
A Board
D Board
B1 Board
D1 Board
J Board

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted.
- pF : μμF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- ▬ : B + bus.
- ▬ ▬ ▬ : B - bus.
- ➡ : RF signal path.
- ⊥ : earth - ground.
- : earth - chassis.

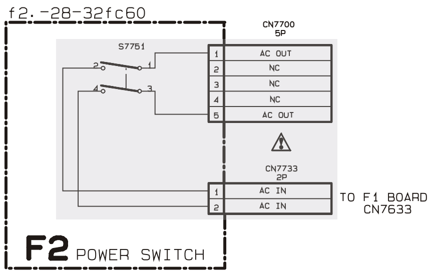
Reference Information

RESISTOR	**RN**	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	**LF-8L**	: MICRO INDUCTOR
CAPACITOR	**TA**	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

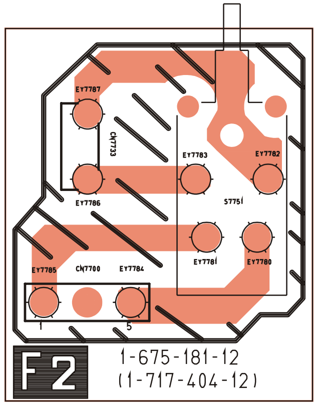
Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.

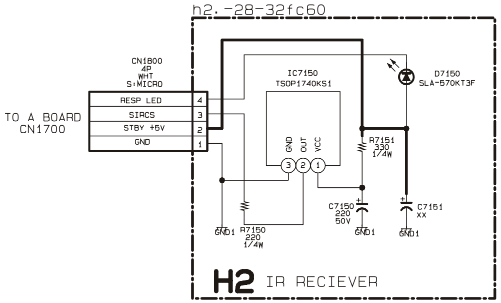
F2 [POWER SWITCH]


f2.-28-32fc60
S7751
CN7700
5P
AC OUT
NC
NC
NC
AC OUT
CN7733
2P
AC IN
AC IN
TO F1 BOARD
CN7633
F2 POWER SWITCH

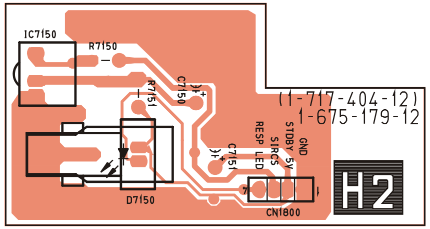
F2 [PRINTED WIRING BOARD]


EY7787
CN7733
EY7783
EY7782
EY7786
S7751
EY7785
CN7700
EY7784
EY7781
EY7780
F2
1-675-181-12
(1-717-404-12)

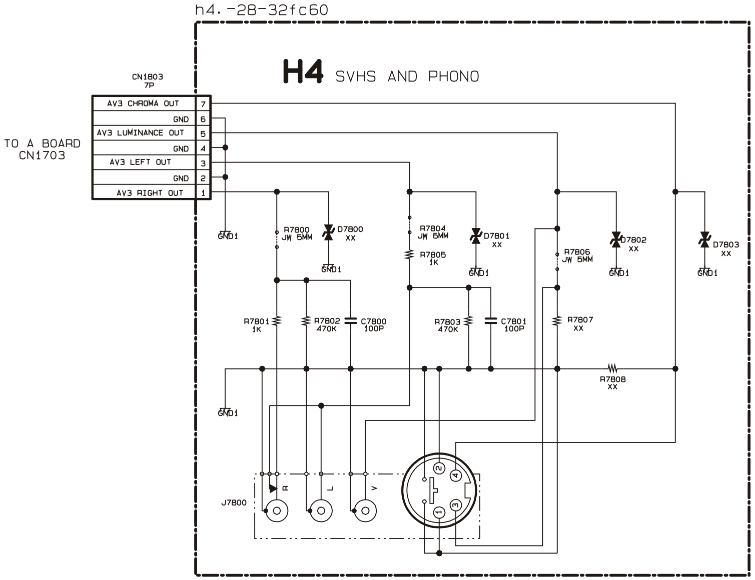
H2 [IR RECEIVER]


h2.-28-32fc60
CN1800
4P
WHT
S-MICRO
RESP LED
SIRCS
STBY +5V
GND
TO A BOARD
CN1700
IC7150
TSOP1740KS1
GND
OUT
VCC
D7150
SLA-570KT3F
R7151
330
1/4W
R7150
220
1/4W
C7150
220
50V
C7151
XX
GND1
H2 IR RECIEVER

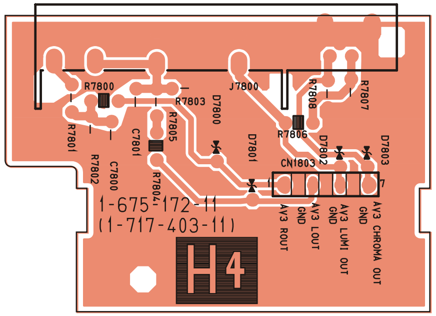
H2 [PRINTED WIRING BOARD]


IC7150
R7150
C7150
R7151
C7151
(1-717-404-12)
1-675-179-12
RESP LED
SIRCS
STDBY 5V
GND
D7150
CN1800
H2

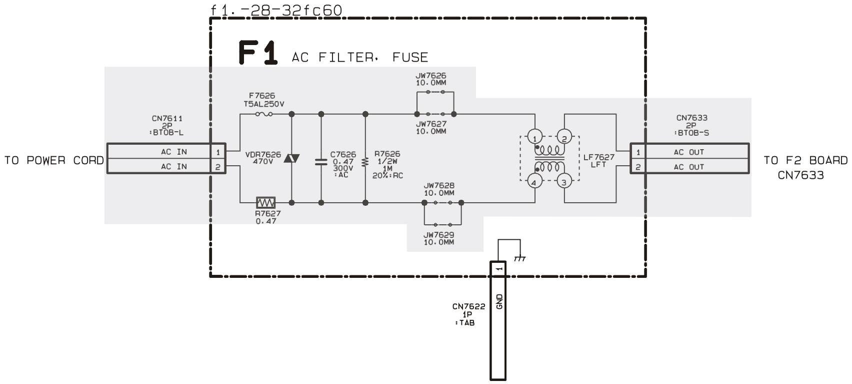
H4 [SVHS AND PHONO]


h4.-28-32fc60
H4 SVHS AND PHONO
CN1803
7P
AV3 CHROMA OUT
GND
AV3 LUMINANCE OUT
GND
AV3 LEFT OUT
GND
AV3 RIGHT OUT
TO A BOARD
CN1703
R7800
JW 5MM
D7800
XX
R7804
JW 5MM
R7805
1K
D7801
XX
R7806
JW 5MM
D7802
XX
D7803
XX
R7801
1K
R7802
470K
C7800
100P
R7803
470K
C7801
100P
R7807
XX
R7808
XX
GND1
J7800

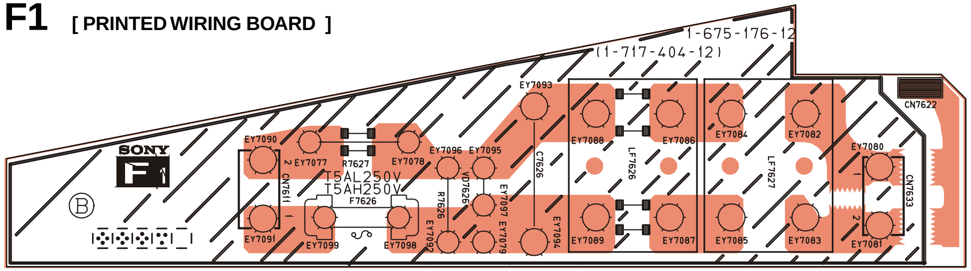
H4 [PRINTED WIRING BOARD]


R7800
J7800
R7803
R7808
R7807
D7800
R7801
C7801
R7805
D7801
R7806
D7802
D7803
CN1803
R7802
C7800
R7804
1-675-172-11
(1-717-403-11)
AV3 ROUT
GND
AV3 LOUT
GND
AV3 LUMI OUT
GND
AV3 CHROMA OUT
H4

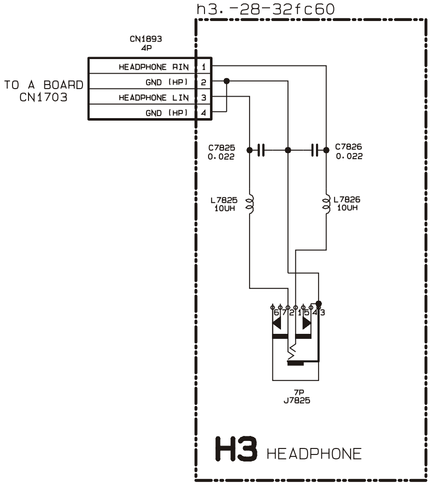
F1 [AC FILTER AND FUSE]


f1.-28-32fc60
F1 AC FILTER, FUSE
CN7611
2P
BTOB-L
AC IN
AC IN
TO POWER CORD
F7626
T5AL250V
VDR7626
470V
R7627
0.47
C7626
0.47
300V
AC
R7626
1/2W
1M
20% RC
JW7626
10.0MM
JW7627
10.0MM
JW7628
10.0MM
JW7629
10.0MM
LF7627
LFT
CN7633
2P
BTOB-S
AC OUT
AC OUT
TO F2 BOARD
CN7633
CN7622
1P
TAB
GND

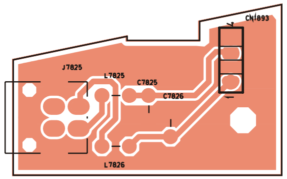
F1 [PRINTED WIRING BOARD]


1-675-176-12
(1-717-404-12)
CN7622
SONY
F1
EY7093
EY7090
EY7077
R7627
EY7078
EY7096
EY7095
EY7088
EY7086
EY7084
EY7082
EY7080
CN7611
T5AL250V
T5AH250V
F7626
C7626
VDR7626
R7626
LF7626
LF7627
CN7633
EY7091
EY7099
EY7098
EY7092
EY7097
EY7079
EY7094
EY7089
EY7087
EY7085
EY7083
EY7081

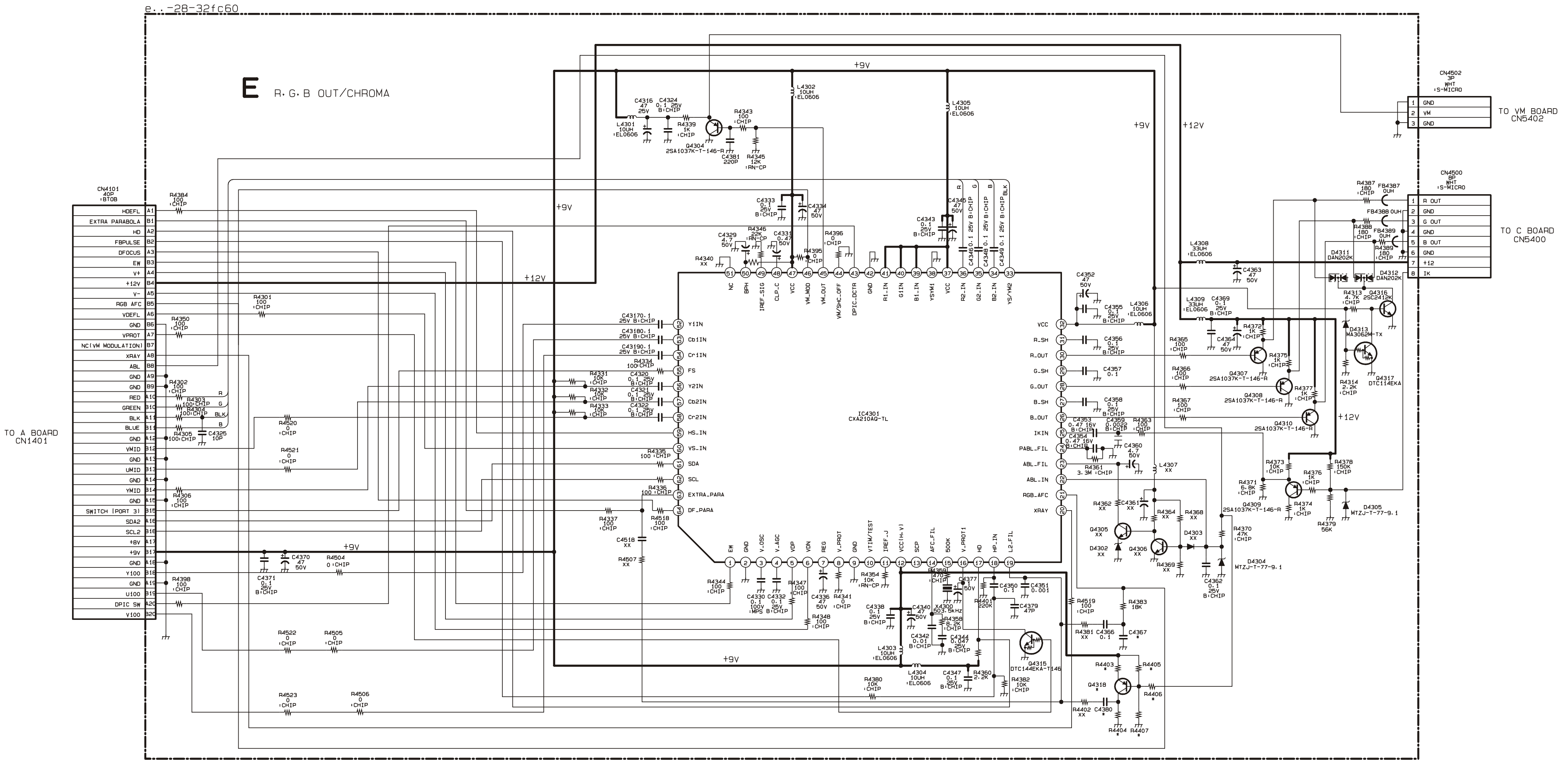
H3 [HEADPHONE]


h3.-28-32fc60
CN1893
4P
HEADPHONE RIN
GND (HP)
HEADPHONE LIN
GND (HP)
TO A BOARD
CN1703
C7825
0.022
C7826
0.022
L7825
10UH
L7826
10UH
7P
J7825
H3 HEADPHONE

H3 [PRINTED WIRING BOARD]

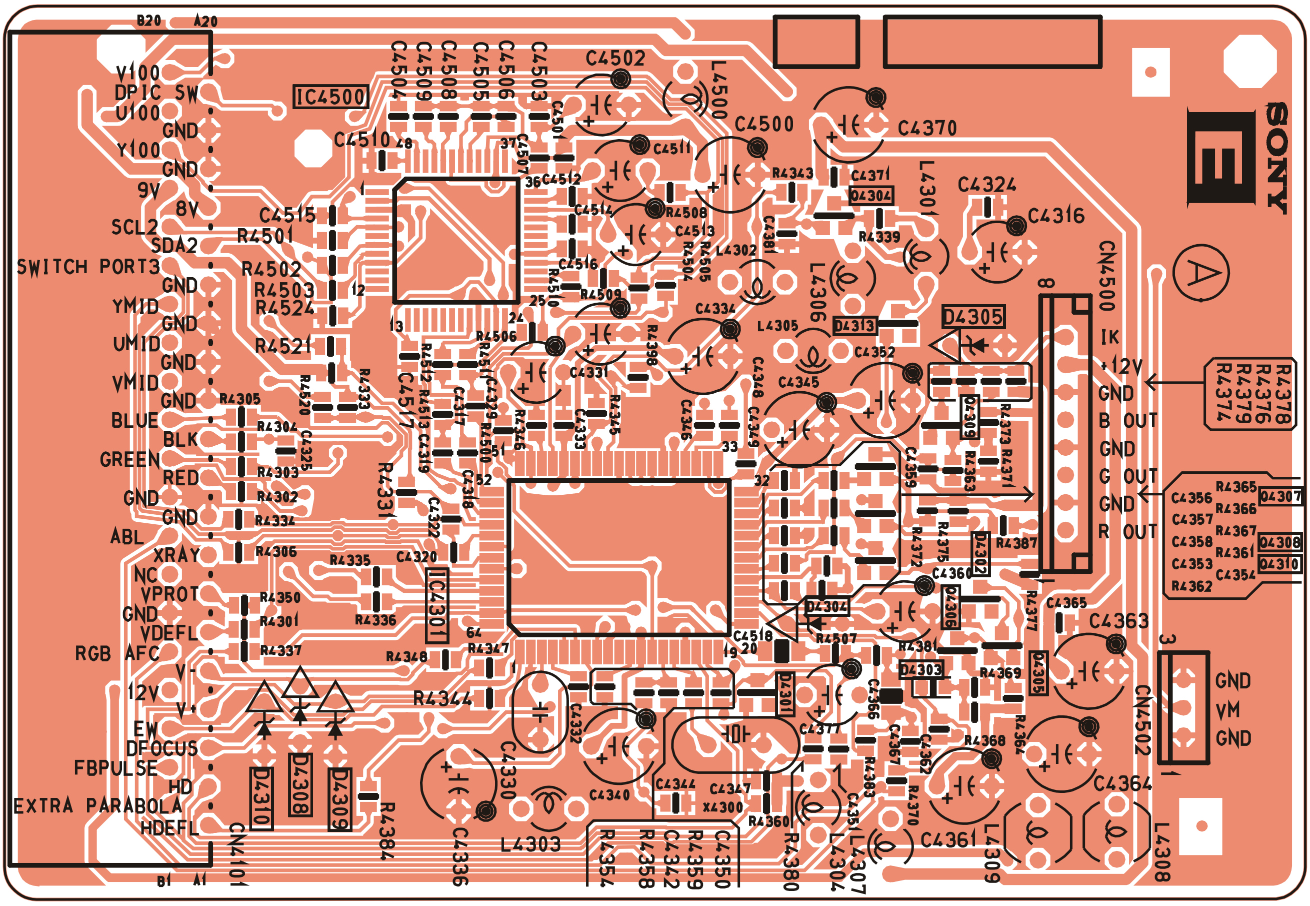

CN1893
J7825
L7825
C7825
C7826
L7826

E [R, G, B OUT / CHROMA]



e..-28-32fc60
E R.G.B OUT/CHROMA
IC4301
CXA2100AQ-TL
CN4101
40P
:BTOB
TO A BOARD
CN1401
HDEFL
EXTRA PARABOLA
HD
FBPULSE
DFOCUS
EW
V+
+12V
V-
RGB AFC
VDEFL
GND
VPROT
NC(VM MODULATION)
XRAY
ABL
RED
GREEN
BLK
BLUE
YMID
UMID
SWITCH (PORT 3)
SDA2
SCL2
+8V
+9V
Y100
U100
DPIC SW
V100
CN4502
3P
WHT
:S-MICRO
GND
VM
TO VM BOARD
CN5402
CN4500
8P
WHT
:S-MICRO
R OUT
G OUT
B OUT
+12
IK
TO C BOARD
CN5400
+9V
+12V
Y1IN
Cb1IN
Cr1IN
FS
Y2IN
Cb2IN
Cr2IN
HS_IN
VS_IN
SDA
SCL
EXTRA_PARA
DF_PARA
VCC
R_SH
R_OUT
G_SH
G_OUT
B_SH
B_OUT
IKIN
PABL_FIL
ABL_FIL
ABL_IN
RGB_AFC
XRAY
NC
BPH
IREF_SIG
CLP-C
VM_MOD
VM_OUT
VM/SHC_OFF
DPIC_DCTR
R1_IN
G1IN
B1_IN
YSYM1
R2_IN
G2_IN
B2_IN
YS/YM2
EW
V_OSC
V_AGC
VDP
VDN
REG
V_PROT
VTIM/TEST
IREF_J
VCC(H.V)
SCP
AFC_FIL
500K
V_PROT1
HD
HP_IN
L2_FIL
Q4304
2SA1037K-T-146-R
Q4307
2SA1037K-T-146-R
Q4308
2SA1037K-T-146-R
Q4310
2SA1037K-T-146-R
Q4309
2SA1037K-T-146-R
Q4316
2SC2412K
Q4317
DTC114EKA
Q4315
DTC144EKA-T146
D4311
DAN202K
D4312
DAN202K
D4313
MA3062M-TX
D4305
MTZJ-T-77-9.1
D4304
MTZJ-T-77-9.1
X4300
503.5KHZ
L4301
L4302
L4303
L4304
L4305
L4306
L4307
L4308
L4309

E [PRINTED WIRING BOARD]

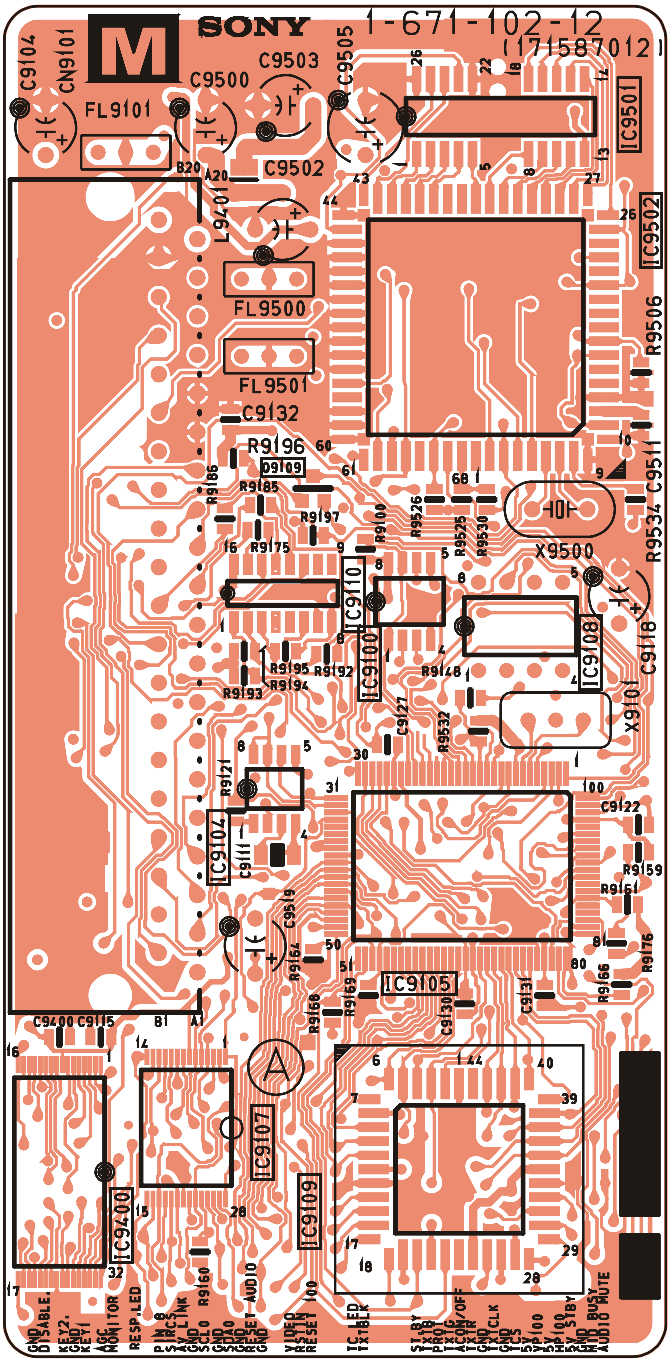


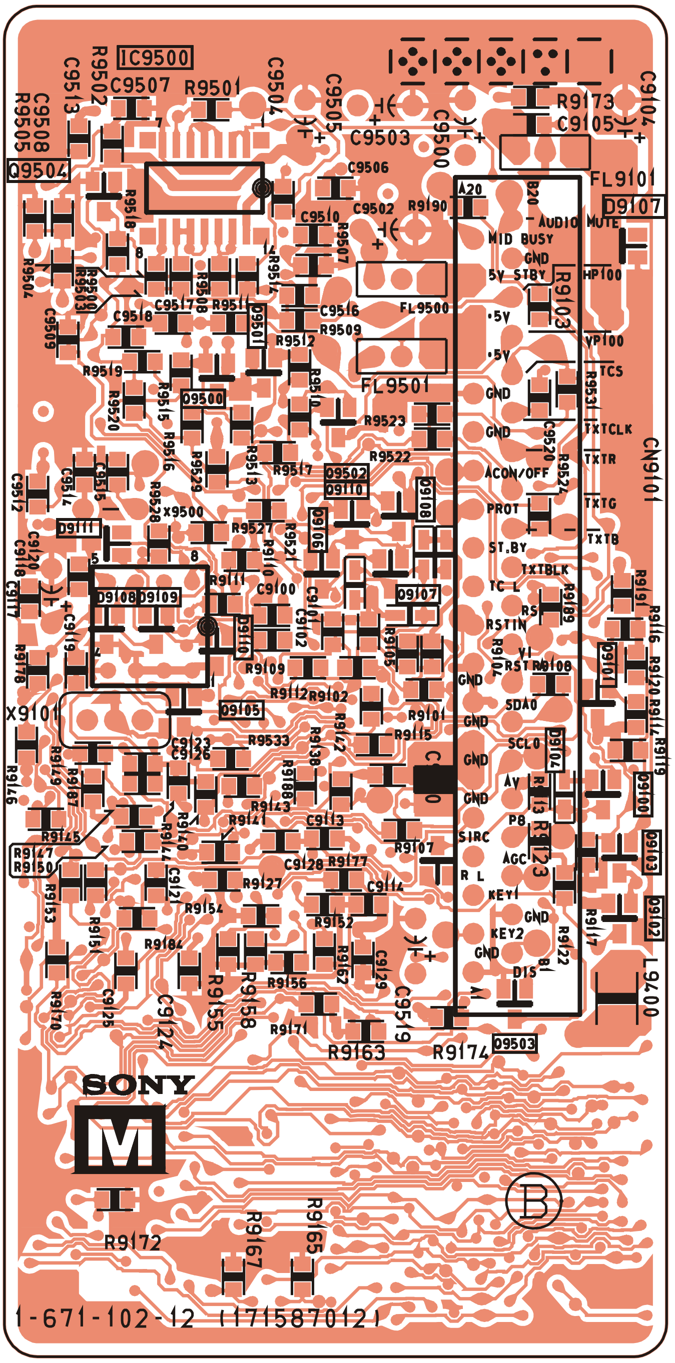
B20
A20
V100
DPIC SW
U100
GND
Y100
GND
9V
8V
SCL2
SDA2
SWITCH PORT3
GND
YMID
GND
UMID
GND
VMID
GND
BLUE
BLK
GREEN
RED
GND
GND
ABL
XRAY
NC
VPROT
GND
VDEFL
RGB AFC
V-
12V
V+
EW
DFOCUS
FBPULSE
HD
EXTRA PARABOLA
HDEFL
B1
A1
CN4101
IC4500
C4510
C4515
R4501
R4502
R4503
R4524
R4521
R4305
R4304
R4303
R4302
R4334
R4306
R4350
R4301
R4337
R4520
R4333
C4325
R4331
R4335
C4320
R4336
R4348
IC4301
R4344
C4504
C4509
C4508
C4505
C4506
C4503
C4502
C4501
C4507
C4512
C4511
C4514
C4516
C4513
R4510
R4508
R4505
R4504
R4509
R4506
C4517
R4512
R4513
C4319
C4317
C4329
R4511
R4500
R4346
C4331
C4333
R4345
R4398
C4318
C4316
C4322
R4347
C4332
C4330
C4336
L4303
C4340
C4344
C4347
X4300
R4354
R4358
C4342
R4359
C4350
R4360
R4380
L4304
L4307
C4351
R4383
R4370
C4361
L4309
L4308
L4500
C4500
R4343
C4371
D4304
L4301
R4339
C4381
L4302
L4306
C4334
L4305
D4313
C4352
C4345
C4348
C4349
C4346
C4370
C4324
C4316
D4305
CN4500
IK
+12V
GND
B OUT
GND
G OUT
GND
R OUT
R4378
R4376
R4379
R4374
C4356
R4365
Q4307
C4357
R4366
C4358
R4367
Q4308
C4353
R4361
Q4310
R4362
C4354
C4359
D4309
R4373
R4371
R4363
R4375
R4372
D4302
R4387
C4360
D4306
D4304
R4377
C4365
C4363
R4507
C4518
R4381
D4303
R4369
Q4305
D4301
C4366
C4377
C4367
R4368
R4364
C4362
C4364
CN4502
GND
VM
GND
D4310
D4308
D4309
R4384
SONY
E
A

E [BOARD COMPONENT DIFFERENCES]

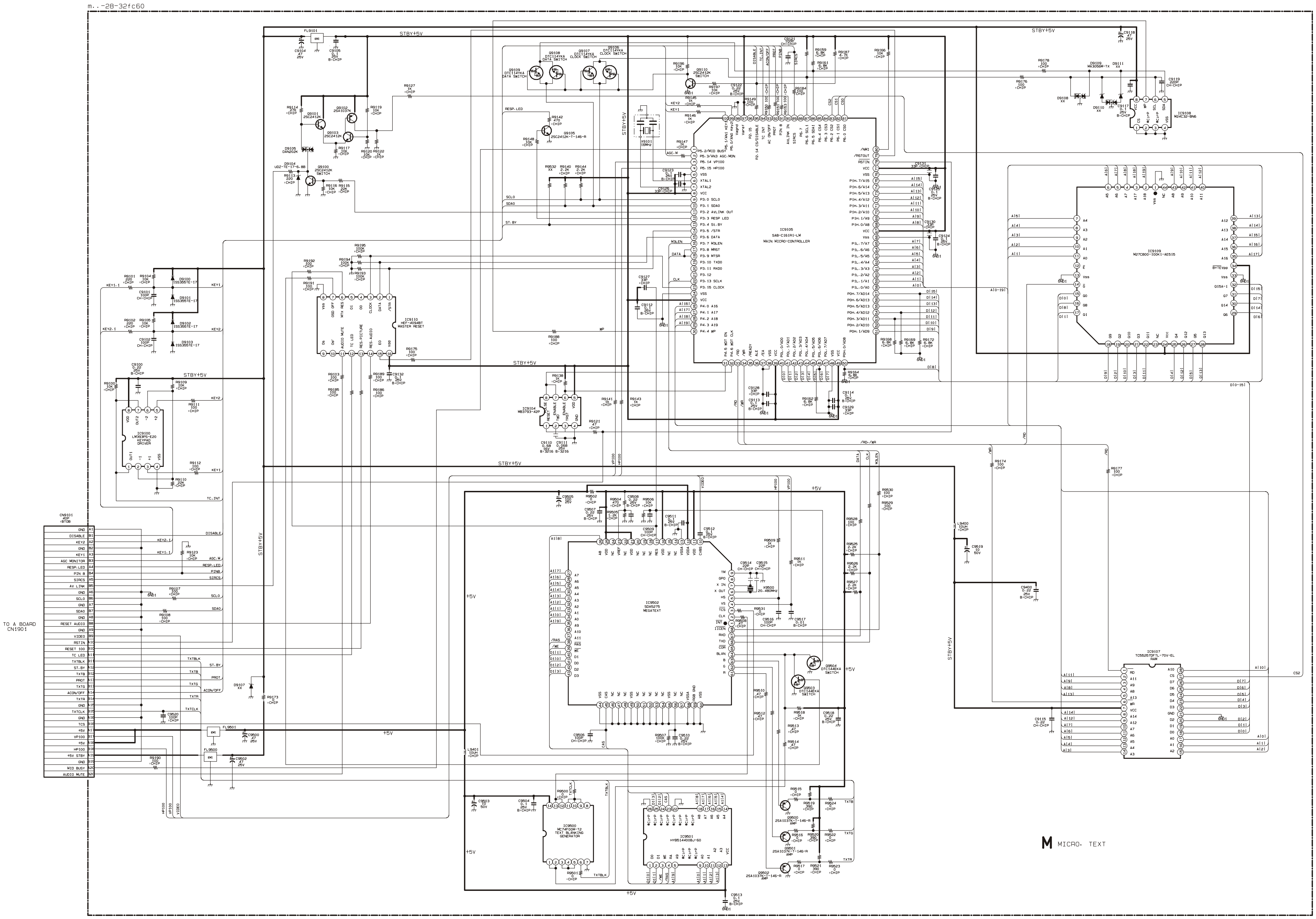
Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
C4367	0.047MF 25V	0.047MF 25V	0.047MF 50V	0.047MF 50V
C4380	-	-	0.0047MF	0.0047MF
Q4318	-	-	2SA1037AK-T-146-R	2SA1037AK-T-146-R
R4403	-	-	10K	10K
R4404	-	-	10K	10K
R4405	-	-	39K	39K
R4406	-	-	220K	220K
R4407	-	-	56K	56K

M [PRINTED WIRING BOARD]

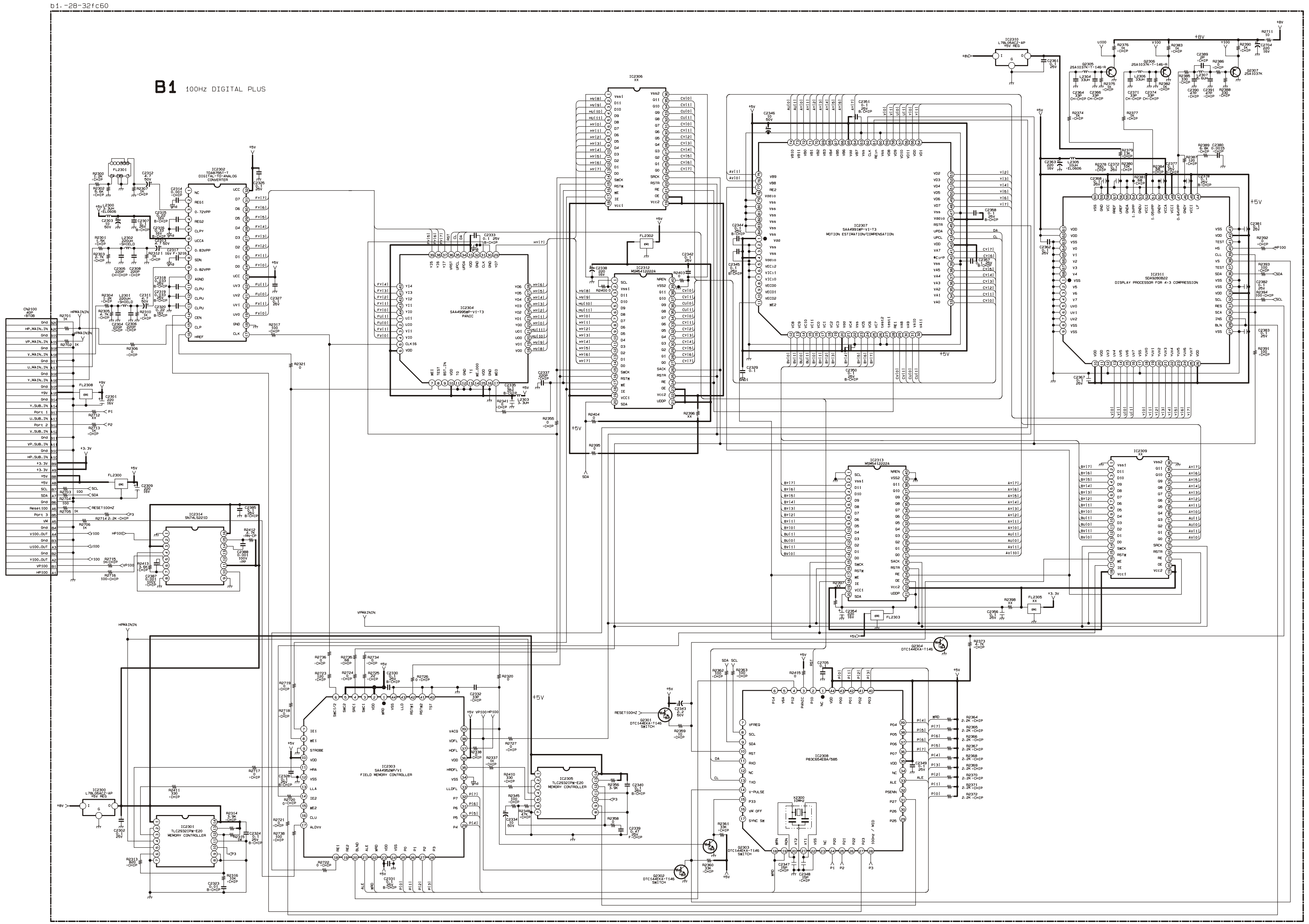

M
SONY
1-671-102-12
(1715870121)
Ⓐ
IC9501
IC9502
IC9100
IC9104
IC9105
IC9107
IC9108
IC9109
IC9110
IC9400
X9500
X9101
FL9101
FL9500
FL9501
CN9101
L9401
C9104
C9500
C9502
C9503
C9505
C9132
C9511
C9118
R9506
R9534
R9196
D9109


SONY
M
1-671-102-12
(1715870121)
Ⓑ
IC9500
Q9504
CN9101
FL9101
FL9500
FL9501
D9107
D9500
D9502
D9105
C9503
C9504
C9505
C9506
C9507
C9519
C9124
R9163
R9172
R9174
R9167
R9165
R9155
R9158
X9500
X9101
AUDIO MUTE
MID BUSY
5V STBY
HP100
VP100
ACON/OFF
PROT
ST.BY
TXTBLK
RSTIN
SDAO
SCLO
SIRC
AGC
KEY1
KEY2
DIS

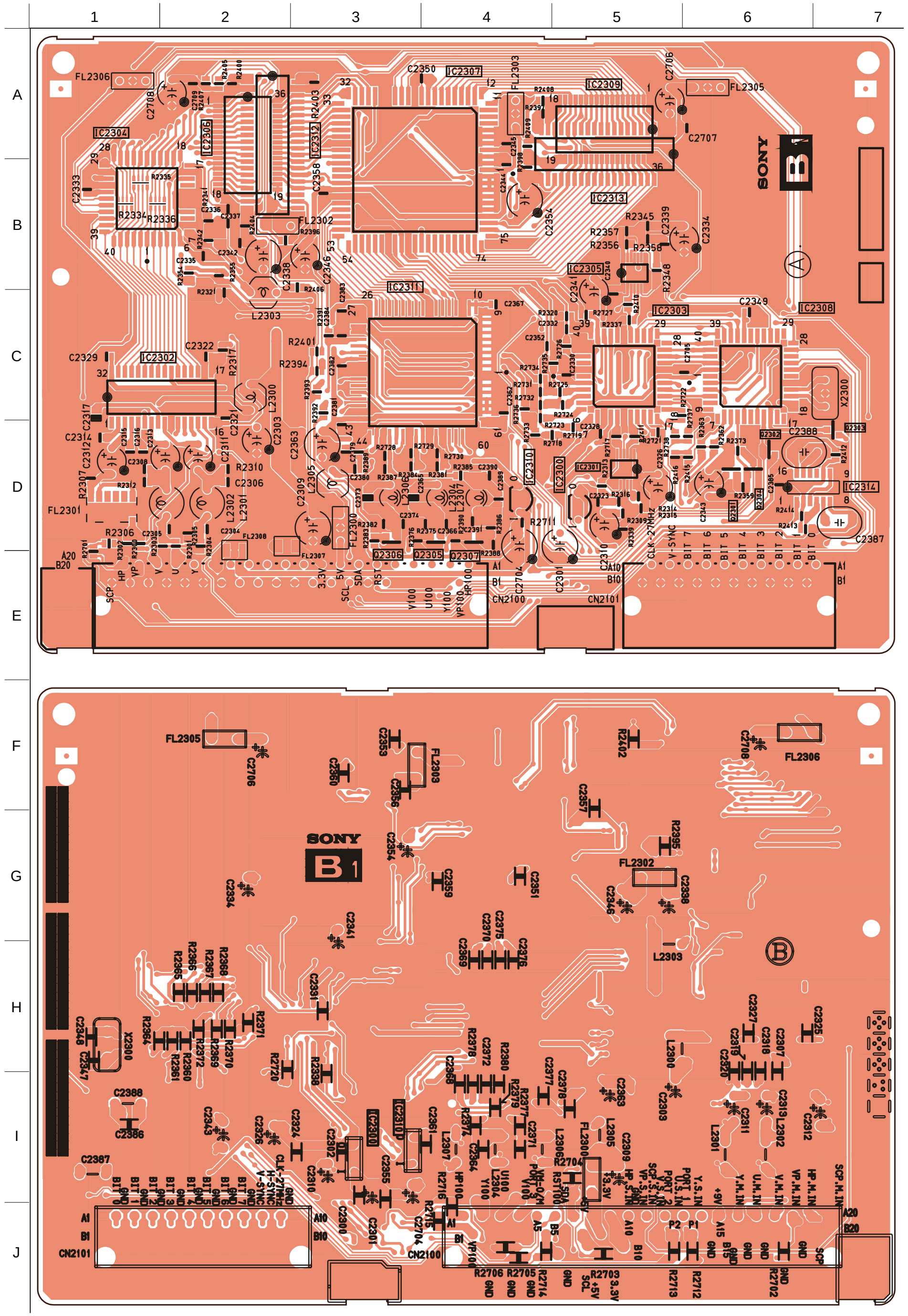
M [MICRO, TEXT]


m..-28-32fc60
CN9101
40P
:BTOB
GND A1
DISABLE B1
KEY2 A2
GND B2
KEY1 A3
AGC MONITOR B3
RESP.LED A4
PIN 8 B4
SIRCS A5
AV LINK B5
GND A6
SCL0 B6
GND A7
SDA0 B7
GND A8
RESET AUDIO B8
GND A9
VIDEO B9
RSTIN A10
RESET 100 B10
TC LED A11
TXTBLK B11
ST.BY A12
TXTB B12
PROT A13
TXTG B13
ACON/OFF A14
TXTR B14
GND A15
TXTCLK B15
GND A16
TCS B16
+5V A17
VP100 B17
+5V A18
HP100 B18
+5V STBY A19
GND B19
MID BUSY A20
AUDIO MUTE B20
TO A BOARD
CN1901
STBY+5V
+5V
IC9105
SAB-C161RI-LM
MAIN MICRO-CONTROLLER
IC9109
M27C800-100K1-AE515
IC9108
M24C32-BN6
IC9110
HEF4094BT
MASTER RESET
IC9104
MB3793-42P
IC9100
LM393PS-E20
KEYPAD DRIVER
IC9502
SDA5275
MEGATEXT
IC9500
MC74F00N-T2
TEXT BLANKING GENERATOR
IC9501
HYB514400BJ-60
IC9107
TC55257DFTL-70V-EL
RAM
X9101
16MHz
X9500
20.480MHz
FL9101
FL9501
FL9500
L9400
L9401
M MICRO. TEXT

B1 [100Hz DIGITAL PLUS]

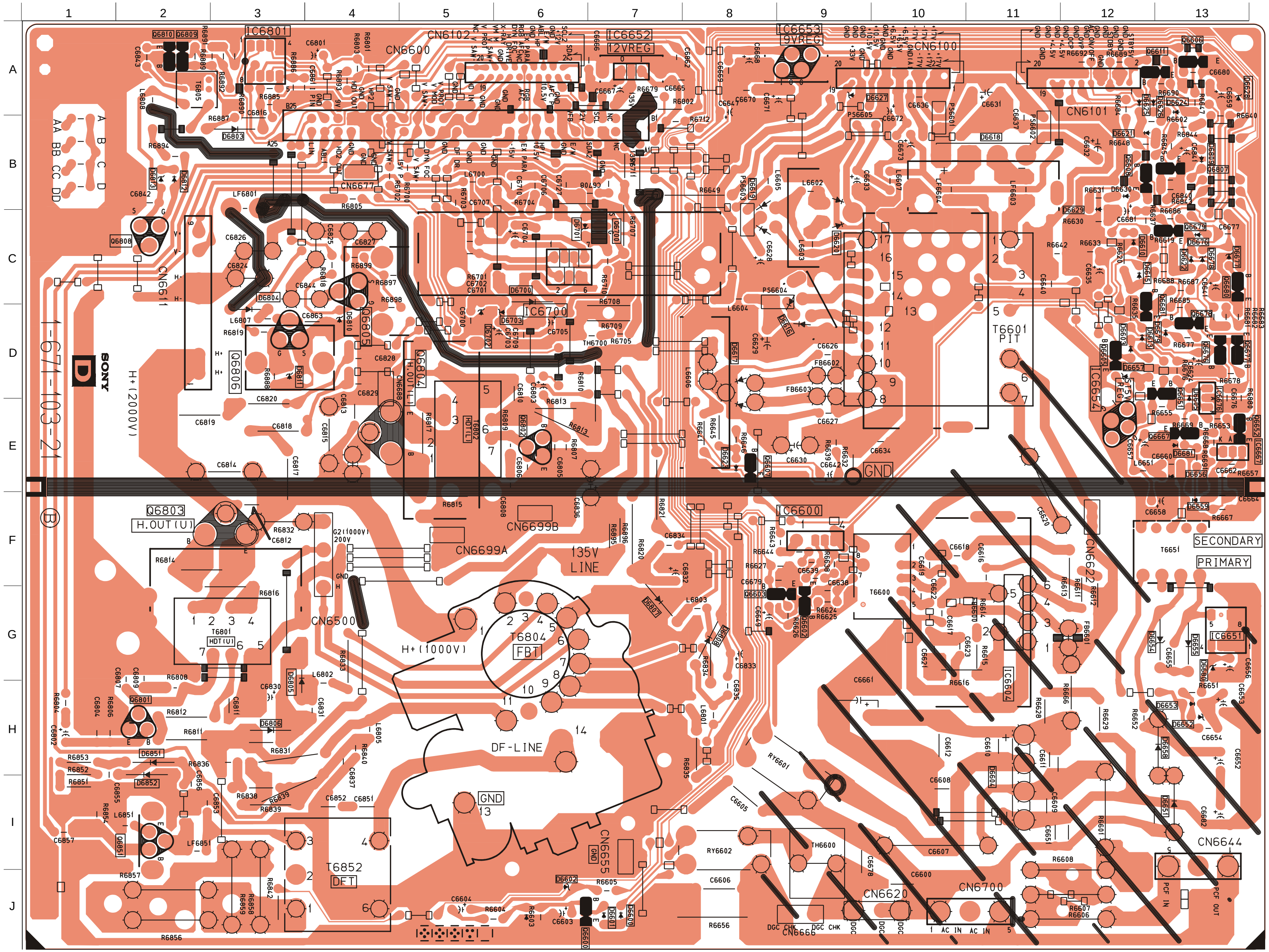

b1.-28-32fc60
B1 100Hz DIGITAL PLUS
TO A BOARD CN1200
CN2100 40P
IC2302 TDA8755-1 DIGITAL-TO-ANALOG CONVERTER
IC2306 xx
IC2304 SAA4995WP-V1-T3 PANIC
IC2312 MSM5412222A
IC2307 SAA4991WP-V1-T3 MOTION ESTIMATION/COMPENSATION
IC2311 SDA9280B22 DISPLAY PROCESSOR FOR 4:3 COMPRESSION
IC2310 L78L05ACZ-AP +5V REG
IC2313 MSM5412222A
IC2309 xx
IC2314 SN74LS221D
IC2303 SAA4952WP/V1 FIELD MEMORY CONTROLLER
IC2305 TLC2932IPW-E20 MEMORY CONTROLLER
IC2301 TLC2932IPW-E20 MEMORY CONTROLLER
IC2300 L78L05ACZ-AP +5V REG
IC2308 P83C654EBA/585
X2300 10MHz
Q2301 DTC144EKA-T146 SWITCH
Q2302 DTC144EKA-T146 SWITCH
Q2303 DTC144EKA-T146 SWITCH
Q2304 DTC144EKA-T146
Q2305 2SA1037K-T-146-R
Q2306 2SA1037K-T-146-R
Q2307 2SA1037K
FL2300
FL2301
FL2302
FL2303
FL2305
FL2308

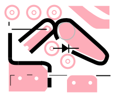
B1 [PRINTED WIRING BOARD]


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
SONY
B1
Ⓐ
Ⓑ
IC2300
IC2301
IC2302
IC2303
IC2304
IC2305
IC2307
IC2308
IC2310
IC2311
IC2312
IC2313
IC2314
Q2305
Q2306
Q2307
FL2301
FL2302
FL2303
FL2305
FL2306
X2300
L2303
CN2100
CN2101

IC		TRANSISTOR	
IC2300	E - 4	Q2301	D - 6
IC2301	D - 5	Q2302	F - 7
IC2302	C - 1	Q2303	F - 7
IC2303	C - 5	Q2304	D - 6
IC2304	A - 1	Q2305	E - 3
IC2305	B - 5	Q2306	E - 3
IC2307	A - 3	Q2307	E - 4
IC2308	C - 6		
IC2310	D - 7		
IC2311	C - 3		
IC2312	C - 9		
IC2313	B - 5		
IC2314	D - 6		

D [PRINTED WIRING BOARD]

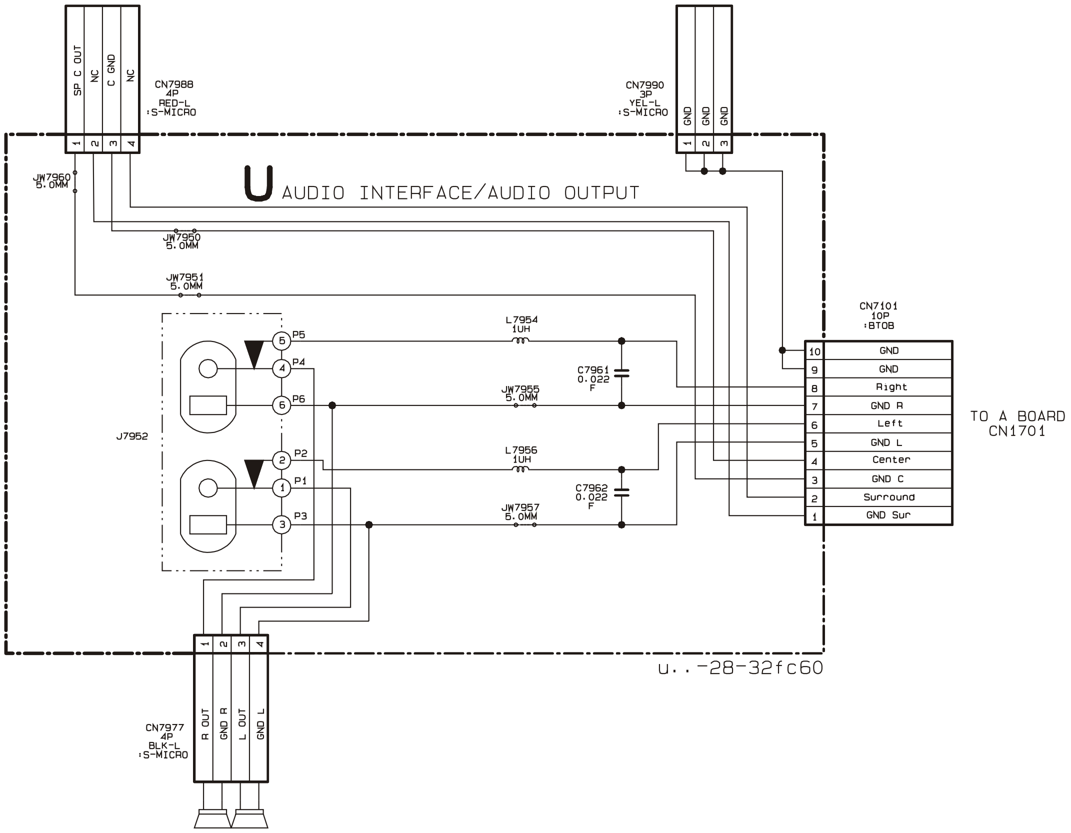

1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
SONY
D
1-671-103-21
B
IC6801
IC6652
12VREG
IC6653
9VREG
CN6100
CN6101
CN6102
CN6600
CN6611
CN6677
IC6700
Q6804
H.OUT(L)
Q6806
Q6805
Q6803
H.OUT(U)
H+(2000V)
H+(1000V)
T6601
PIT
IC6654
IC6600
T6600
SECONDARY
PRIMARY
IC6651
IC6604
CN6622
CN6699A
CN6699B
135V
LINE
CN6500
T6804
FBT
DF-LINE
GND
T6801
HDT(U)
T6802
HDT(L)
T6852
DFT
CN6655
CN6620
CN6666
CN6700
CN6644
PCF IN
PCF OUT
AC IN
DGC CHK
RY6601
RY6602
TH6600
TH6700
AA BB CC DD
A B C D



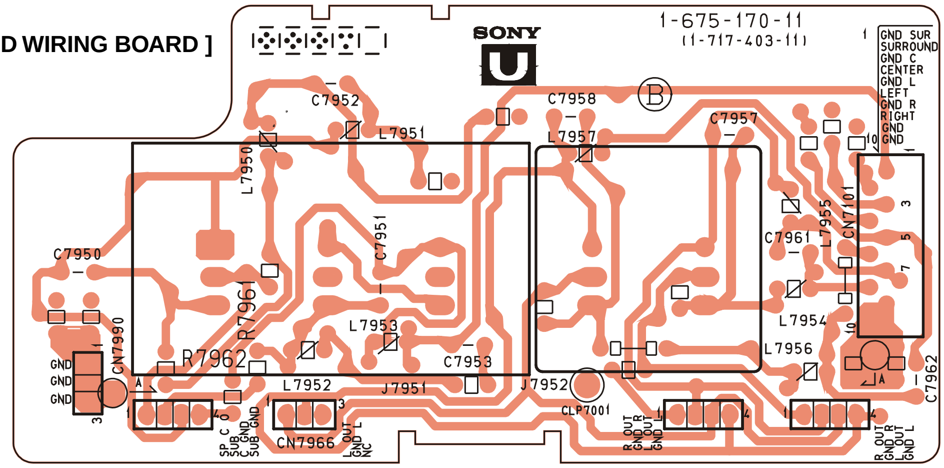
NOTE:
Portions of the circuit marked as shown are high voltage areas. Use care to prevent electric shock during inspection or repair.

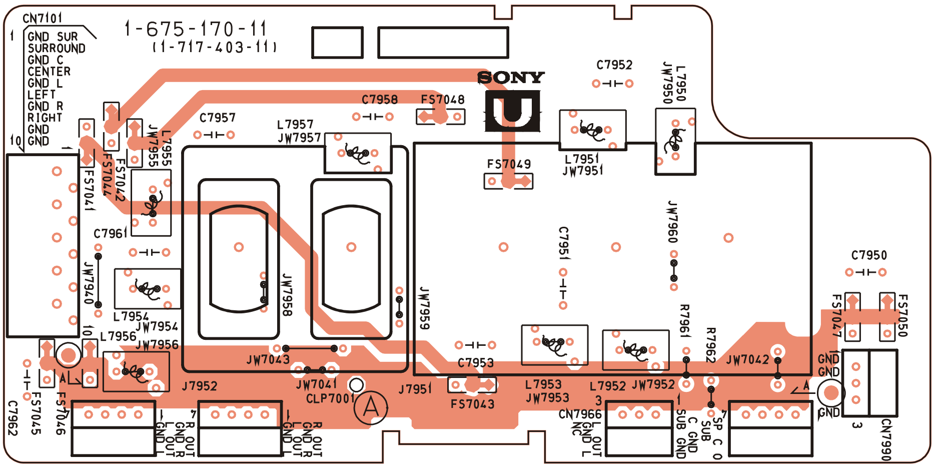
IC		D6613	D - 12
IC6600	F - 9	D6615	C - 12
IC6604	H - 11	D6616	D - 9
IC6651	G - 13	D6617	D - 8
IC6652	A - 7	D6618	B - 11
IC6653	A - 9	D6619	B - 8
IC6654	D - 12	D6621	B - 12
IC6667	E - 13	D6622	C - 13
IC6700	D - 6	D6623	E - 8
IC6801	A - 3	D6624	B - 13
TRANSISTOR		D6625	A - 12
Q6600	J - 6	D6626	A - 13
Q6602	G - 9	D6627	A - 10
Q6603	G - 8	D6628	A - 13
Q6605	D - 12	D6629	B - 12
Q6606	A - 13	D6630	B - 12
Q6607	E - 8	D6651	I - 13
Q6651	E - 13	D6652	H - 13
Q6652	E - 13	D6653	H - 13
Q6667	E - 13	D6654	G - 12
Q6676	D - 13	D6655	G - 13
Q6677	D - 13	D6556	E - 13
Q6678	D - 13	D6658	H - 13
Q6679	C - 13	D6659	F - 13
Q6680	C - 13	D6676	C - 13
Q6681	D - 13	D6677	C - 13
Q6700	C - 6	D6678	C - 13
Q6801	H - 2	D6679	D - 13
Q6802	E - 6	D6681	E - 13
Q6803	F - 2	D6700	C - 5
Q6804	D - 5	D6701	H - 2
Q6805	E - 13	D6803	B - 3
Q6806	D - 3	D6804	C - 3
Q6807	B - 13	D6805	G - 3
Q6809	A - 2	D6806	H - 3
Q6810	A - 2	D6807	G - 7
Q6851	I - 2	D6808	G - 8
DIODE		D6809	B - 13
D6600	J - 7	D6811	D - 3
D6601	J - 7	D6851	H - 2
D6602	J - 6	D6852	I- 2
D6603	D - 12		
D6604	I - 11		
D6605	D - 13		
D6610	C - 12		

U [AUDIO INTERFACE / AUDIO OUTPUT]


SP C OUT
NC
C GND
NC
CN7988
4P
RED-L
:S-MICRO
1 2 3 4
CN7990
3P
YEL-L
:S-MICRO
GND
GND
GND
JW7960
5.0MM
U AUDIO INTERFACE/AUDIO OUTPUT
JW7950
5.0MM
JW7951
5.0MM
CN7101
10P
:BTOB
P5
P4
P6
P2
P1
P3
J7952
L7954
1UH
C7961
0.022
F
JW7955
5.0MM
L7956
1UH
C7962
0.022
F
JW7957
5.0MM
10 GND
9 GND
8 Right
7 GND R
6 Left
5 GND L
4 Center
3 GND C
2 Surround
1 GND Sur
TO A BOARD
CN1701
u..-28-32fc60
CN7977
4P
BLK-L
:S-MICRO
R OUT
GND R
L OUT
GND L

U [PRINTED WIRING BOARD]

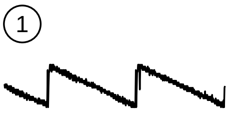
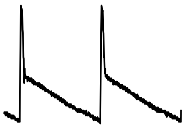
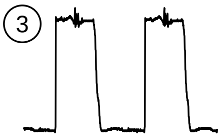
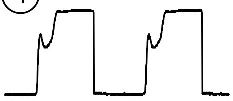
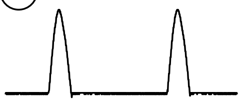
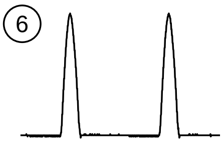
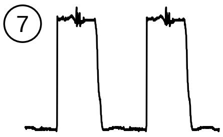
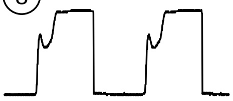
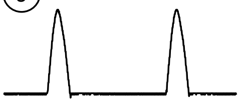
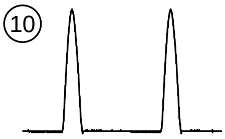
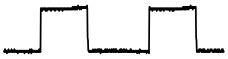
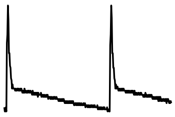
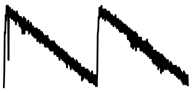
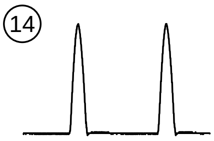

1-675-170-11
(1-717-403-11)
SONY
U
GND SUR
SURROUND
GND C
CENTER
GND L
LEFT
GND R
RIGHT
GND
GND
C7952
L7951
C7958
B
L7957
C7957
L7950
C7951
CN7101
L7955
C7961
C7950
R7961
R7962
L7953
L7954
L7956
C7953
CN7990
GND
GND
GND
L7952
J7951
J7952
CLP7001
CN7966
SP C O
SUB C GND
SUB GND
L OUT
GND L
NC
R OUT
GND R
L OUT
GND
C7962


CN7101
1-675-170-11
(1-717-403-11)
GND SUR
SURROUND
GND C
CENTER
GND L
LEFT
GND R
RIGHT
GND
GND
SONY
U
C7952
L7950
JW7950
C7957
C7958
FS7048
L7957
JW7957
JW7955
L7955
FS7042
FS7041
FS7049
L7951
JW7951
C7961
JW7940
C7951
JW7960
C7950
L7954
JW7954
L7956
JW7956
JW7958
JW7959
R7961
R7962
FS7047
FS7050
JW7043
JW7042
C7953
J7952
JW7041
CLP7001
A
J7951
FS7043
L7953
JW7953
L7952
JW7952
CN7966
GND
GND
GND
CN7990
C7962
FS7045
FS7046
R OUT
GND R
L OUT
GND L
NC
SUB GND
SUB C GND
SP C O

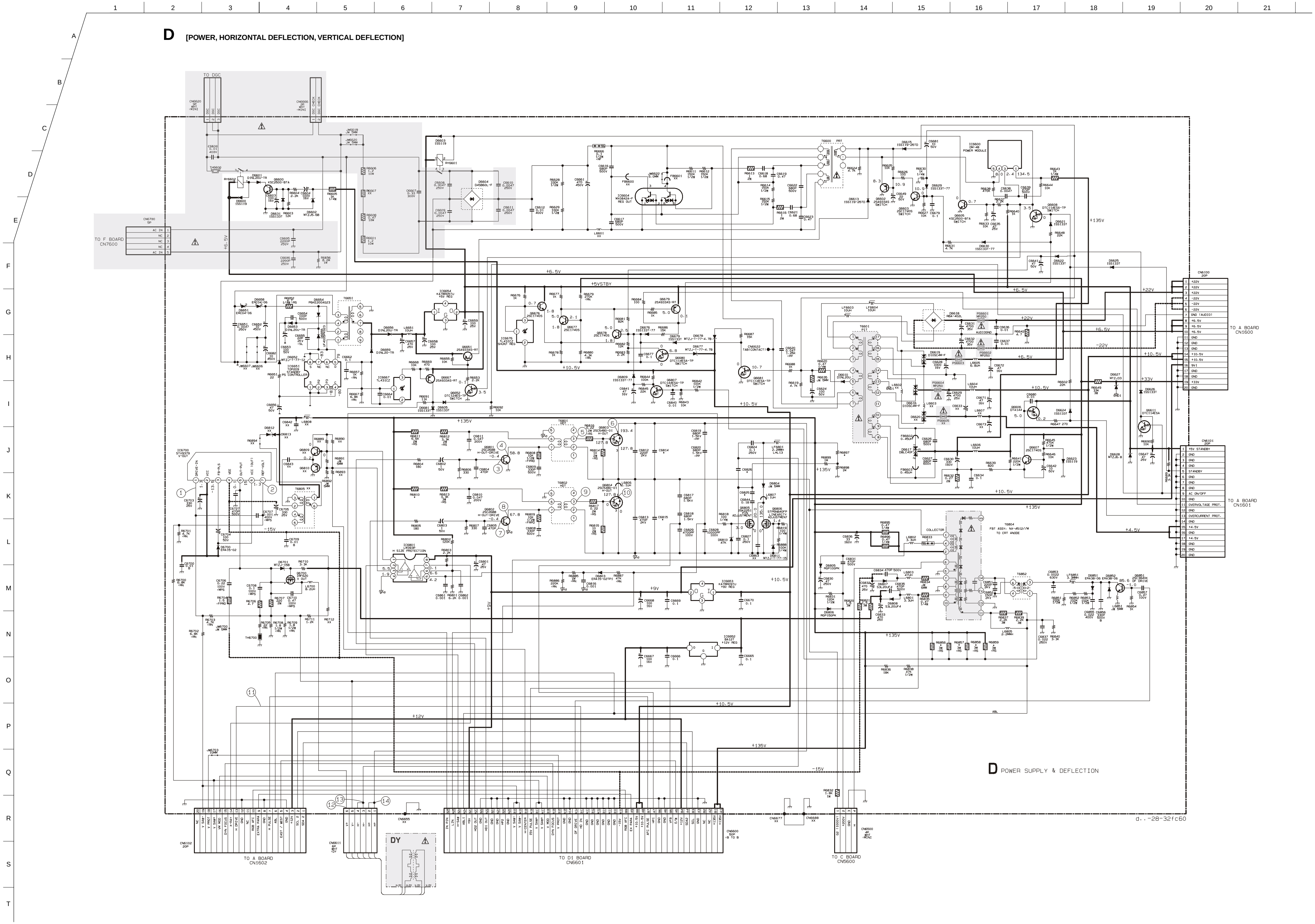
D [BOARD COMPONENT DIFFERENCES]

Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
C6814	7500PF	7500PF	6800PF	6800PF
C6815	6800PF	6800PF	6200PF	6200PF
C6825	0.22MF	0.22MF	0.18MF	0.18MF
C6826	0.68MF	0.68MF	0.56MF	0.56MF
R6810	3.3K	3.3K	3.9K	3.9K
R6836	18K	18K	15K	15K
R6856	8.2K	8.2K	6.8K	6.8K
R6857	8.2K	8.2K	6.8K	6.8K
R6858	8.2K	8.2K	6.8K	6.8K
R6859	8.2K	8.2K	6.8K	6.8K
R6897	470K	470K	680K	680K

Waveforms D Board

①  40 mVp-p (H)	②  0.8 Vp-p (H)	③  20 mVp-p (H)	④  2.0 Vp-p (H)	⑤  1.1 KVp-p (H)
⑥  180 Vp-p (H)	⑦  20 mVp-p (H)	⑧  2.0 Vp-p (H)	⑨  1.1 KVp-p (H)	⑩  180 Vp-p (H)
⑪  0.1 Vp-p (H)	⑫  2.0 Vp-p (H)	⑬  0.3 Vp-p (H)	⑭  20 Vp-p (H)	

D [POWER, HORIZONTAL DEFLECTION, VERTICAL DEFLECTION]


1
2
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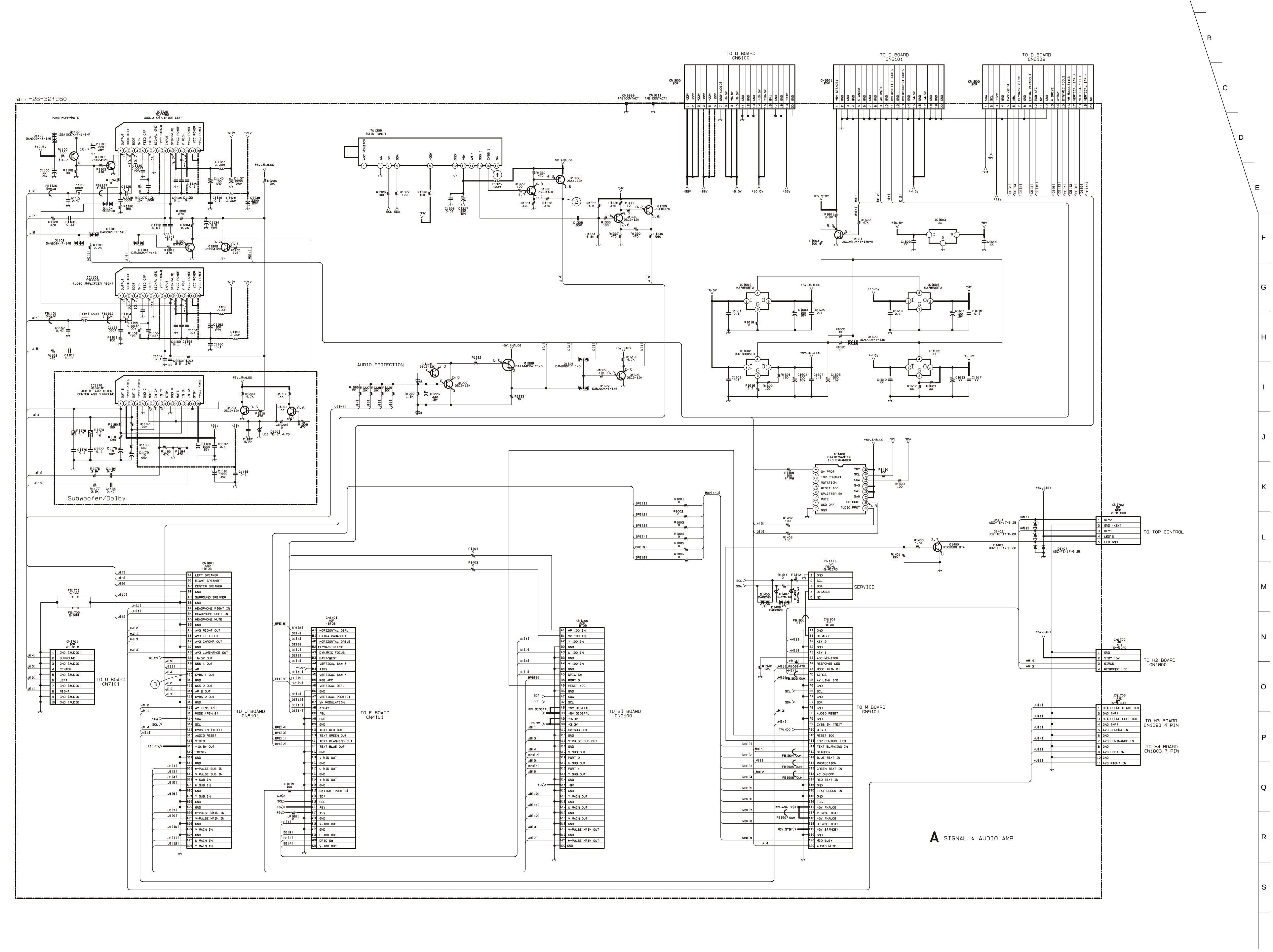
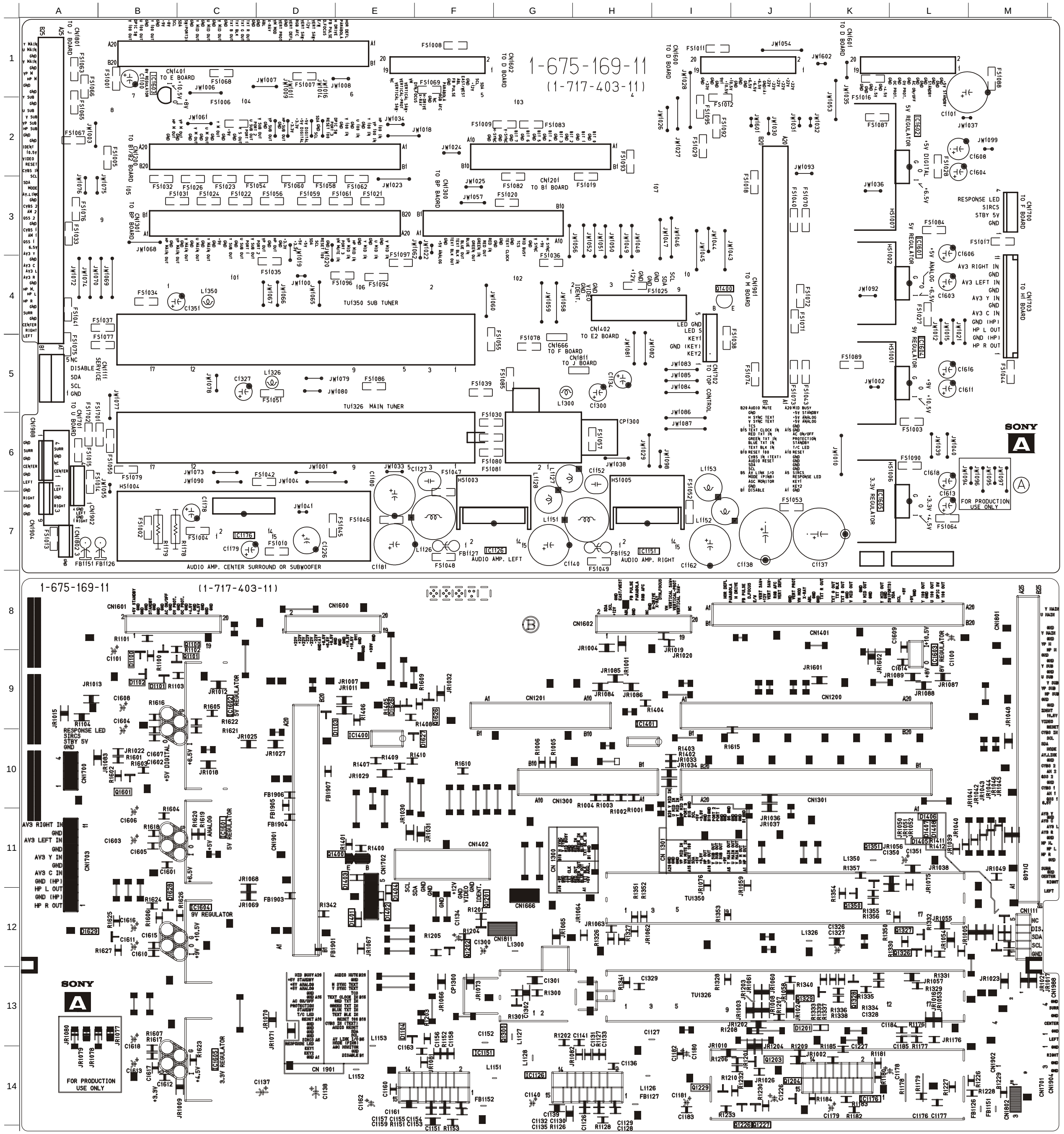
8
9
10
11
12
13
14
15
16
17
18
19
20
21
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
TO DGC
TO F BOARD CN7600
TO A BOARD CN1600
TO A BOARD CN1601
TO A BOARD CN1602
TO D1 BOARD CN6601
TO C BOARD CN5600
DY
IC6600 DM-48 POWER MODULE
T6600 PRT
T6804 FBT ASSY: NX-4512//M TO CRT ANODE
IC6700 STV9379 V-OUT
IC6801 LM393P H SIZE PROTECTION
+135V
+10.5V
+6.5V
+5VSTBY
+22V
-22V
+33V
+12V
+9V
-15V
D POWER SUPPLY & DEFLECTION
d..-28-32fc60

A [SIGNAL & AUDIO AMP]


a..-28-32fc60
POWER-OFF-MUTE
IC1126 TDA7482 AUDIO AMPLIFIER LEFT
IC1151 TDA7482 AUDIO AMPLIFIER RIGHT
IC1176 LM1876TF AUDIO AMPLIFIER CENTER AND SURROUND
Subwoofer/Dolby
TU1326 MAIN TUNER
AUDIO PROTECTION
TO D BOARD CN6100
TO D BOARD CN6101
TO D BOARD CN6102
IC1601 KA78R05TU
IC1602 KA78R05TU
IC1604 KA78R05TU
IC1400 CXA1875AM-T4 I/O EXPANDER
TO TOP CONTROL
SERVICE
TO U BOARD CN7101
TO J BOARD CNB101
TO E BOARD CN4101
TO B1 BOARD CN2100
TO M BOARD CN9101
TO H2 BOARD CN1800
TO H3 BOARD CN1893 4 PIN
TO H4 BOARD CN1803 7 PIN
A SIGNAL & AUDIO AMP

A [PRINTED WIRING BOARD]


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
8
9
10
11
12
13
14
1-675-169-11
(1-717-403-11)
CN1401 TO E BOARD
CN1602 TO D BOARD
CN1600 TO D BOARD
CN1601 TO D BOARD
CN1801 TO J BOARD
CN1200 TO BP BOARD
CN1301 TO BP BOARD
CN1300 TO BP BOARD
CN1201 TO B1 BOARD
CN1901 TO M BOARD
CN1402 TO E2 BOARD
CN1666 TO F BOARD
CN1811 TO J BOARD
CN1702 TO TOP CONTROL
CN1700 TO F BOARD
CN1703 TO HI BOARD
CN1111 SERVICE
CN1988 TO U BOARD
TU1350 SUB TUNER
TU1326 MAIN TUNER
5V REGULATOR
5V DIGITAL
5V ANALOG
9V REGULATOR
3.3V REGULATOR
RESPONSE LED
SIRCS
STBY 5V
GND
AV3 RIGHT IN
AV3 LEFT IN
AV3 Y IN
AV3 C IN
GND (HP)
HP L OUT
HP R OUT
NC
DISABLE
SDA
SCL
FOR PRODUCTION USE ONLY
AUDIO AMP. CENTER SURROUND OR SUBWOOFER
AUDIO AMP. LEFT
AUDIO AMP. RIGHT
SONY
A
B

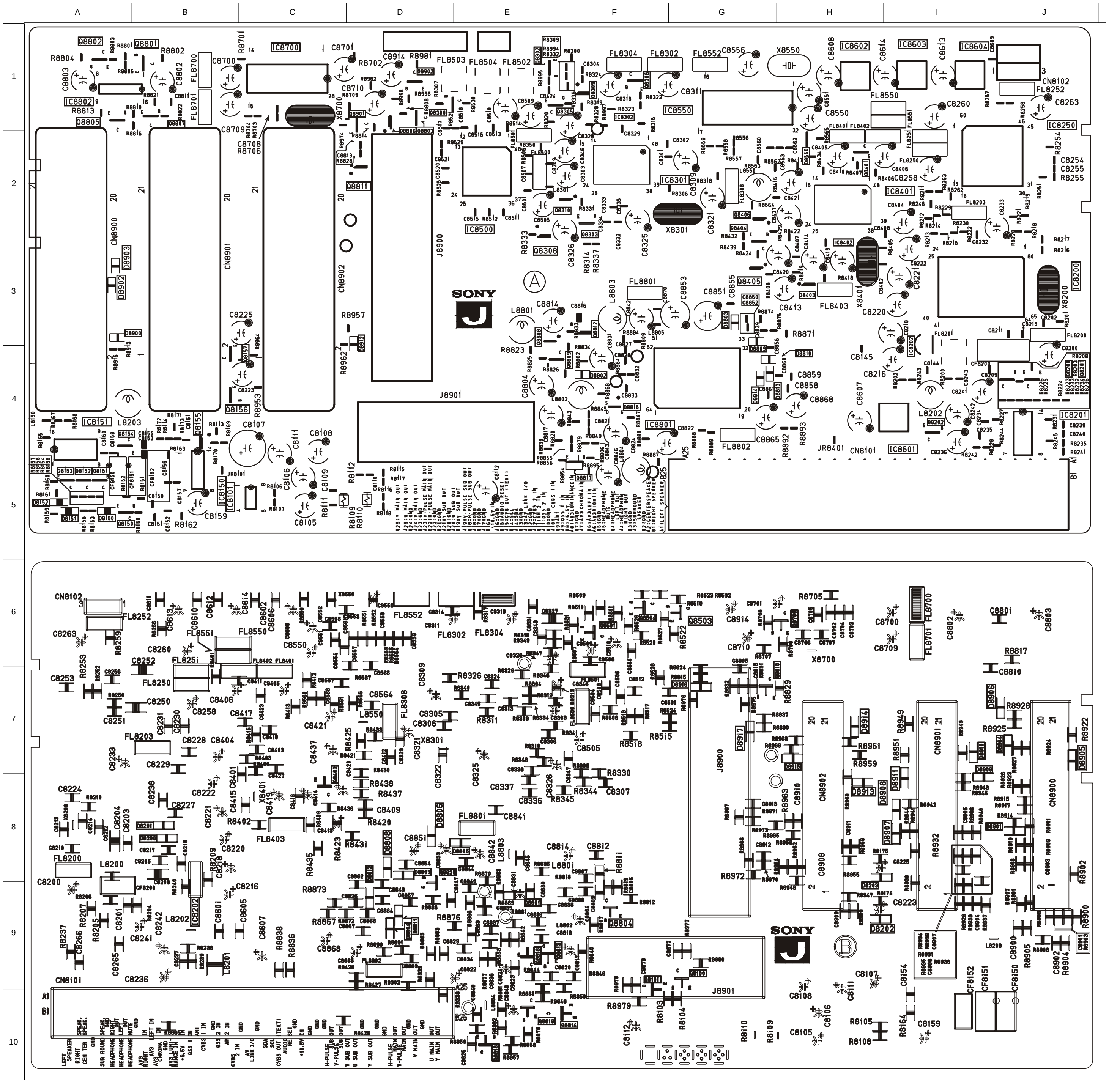
A [BOARD SEMICONDUCTOR LOCATION TABLE]

IC	
IC1126	F - 7
IC1151	H - 7
IC1176	C - 7
IC1400	E - 9
IC1601	L - 3
IC1602	L - 2
IC1604	L - 4

TRANSISTOR	
Q1100	C - 8
Q1101	C - 8
Q1201	F - 12
Q1202	F - 12
Q1204	J - 14
Q1226	J - 14
Q1227	J - 14
Q1229	I - 14
Q1326	L - 12
Q1327	L - 12
Q1328	K - 13
Q1329	J - 13
Q1400	E - 11
Q1601	B - 10
Q1626	F - 9

DIODE	
D1100	B - 8
D1101	B - 9
D1102	B - 9
D1103	D - 9
D1104	E - 13
D1201	J - 13
D1402	E - 12
D1403	E - 11
D1404	E - 11
D1405	L - 11
D1406	L - 11
D1407	L - 11
D1408	L - 11
D1626	E - 9
D1627	F - 9
D1629	B - 12

J [PRINTED WIRING BOARD]



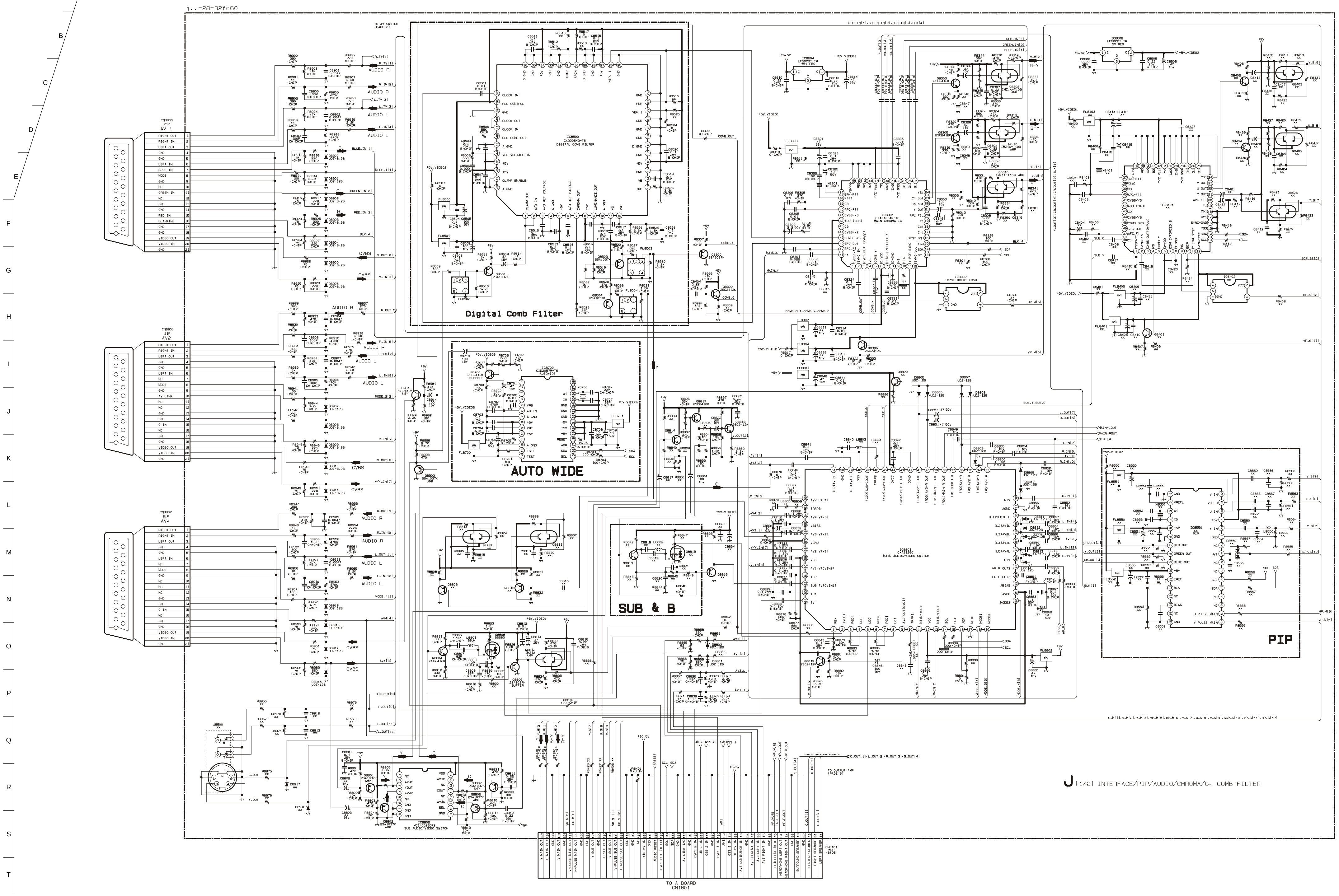
J [BOARD SEMICONDUCTOR LOCATION TABLE]

IC	
IC8101	B - 5
IC8151	A - 4
IC8201	J - 4
IC8202	I - 3
IC8550	G - 1
IC8601	I - 4
IC8602	H - 1
IC8603	I - 1
IC8604	I - 1

TRANSISTOR	
Q8200	J - 3
Q8201	J - 3
Q8202	I - 4
Q8303	F - 2
Q8305	E - 1
Q8308	E - 3
Q8309	F - 1
Q8310	E - 2
Q8401	H - 2
Q8403	H - 3
Q8404	G - 2
Q8405	G - 3
Q8406	G - 2
Q8901	D - 1

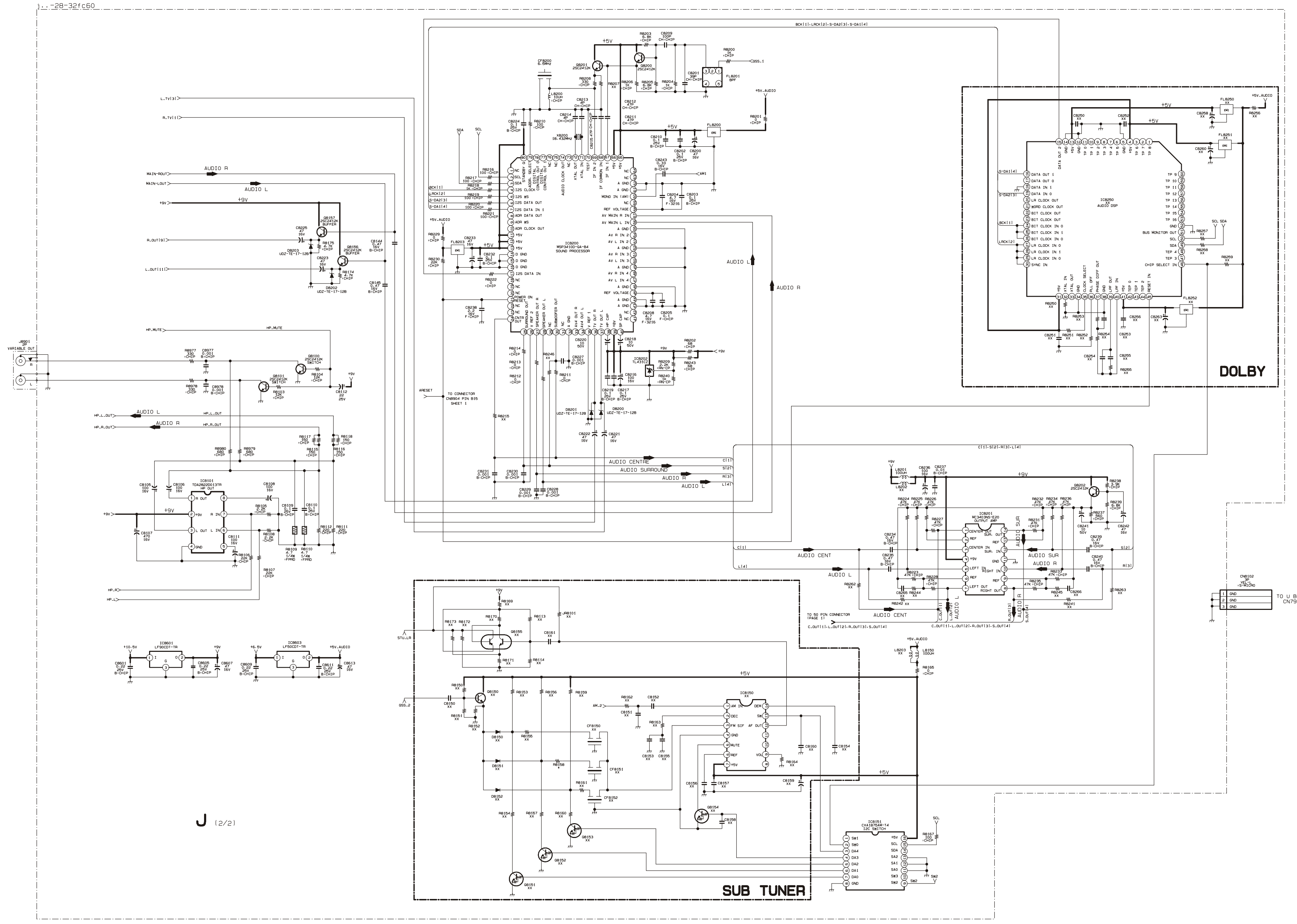
DIODE	
D8801	F - 4
D8802	F - 4
D8803	G - 3
D8804	F - 6
D8805	D - 8
D8806	D - 8
D8807	D - 8
D8808	D - 8
D8809	G - 3
D8810	G - 4
D8811	D - 9
D8812	D - 8
D8813	D - 8
D8814	D - 8
D8900	I - 7
D8901	J - 8
D8904	J - 7
D8905	J - 7
D8906	I - 7
D8907	I - 8
D8908	I - 8
D8909	I - 7
D8910	I - 7
D8911	I - 7
D8912	H - 7
D8913	H - 7
D8914	H - 7
D8915	H - 7

J [1/2 INTERFACE/AUDIO/CHROMA/COMB FILTER]



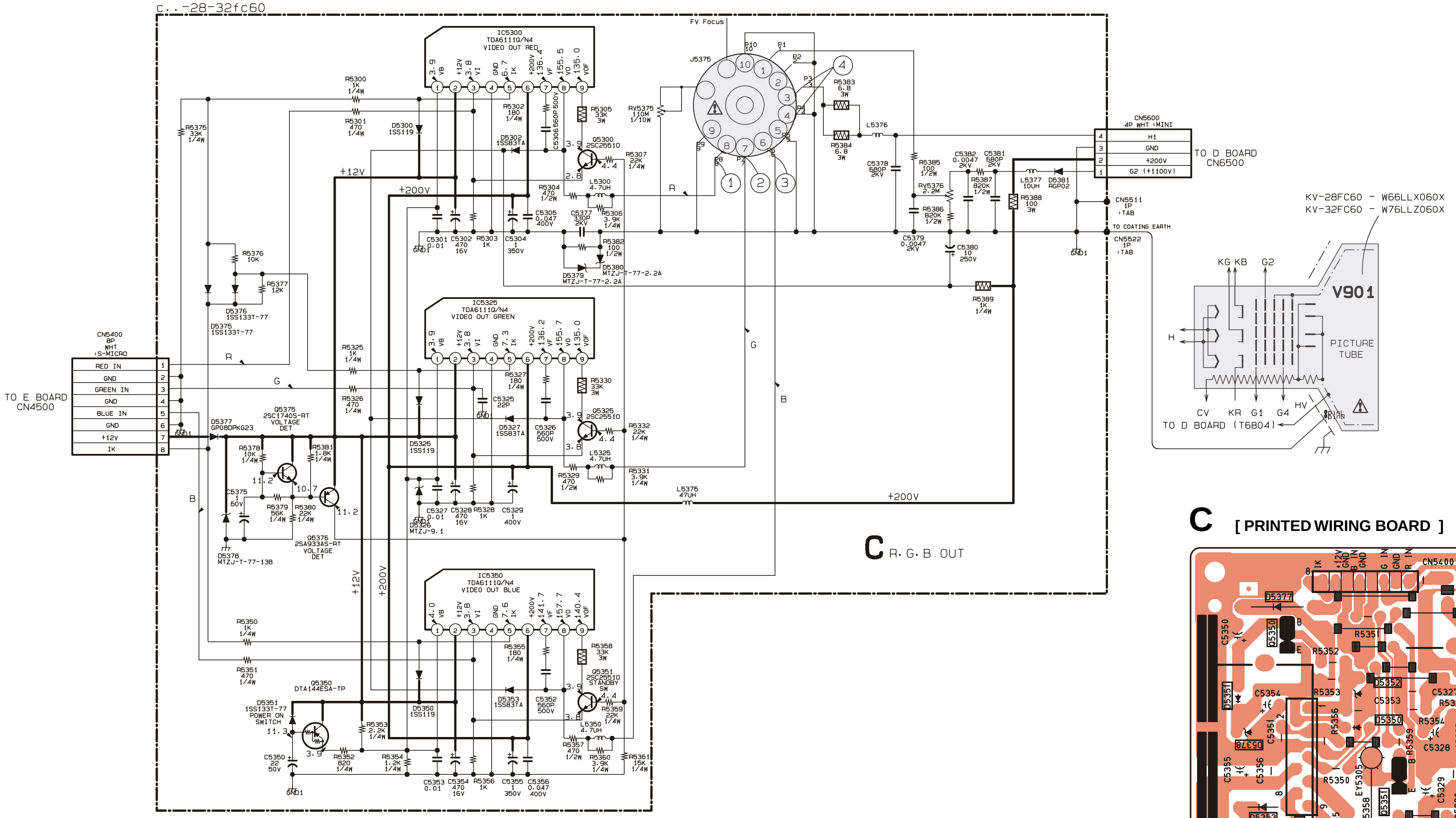
CN8900 21P AV 1
CN8901 21P AV2
CN8902 21P AV4
TO AV SWITCH (PAGE 2)
AUDIO R
AUDIO L
CVBS
IC8500 CXD2064Q-T6 DIGITAL COMB FILTER
Digital Comb Filter
IC8700 CXD2057M-T6 AUTOWIDE
AUTO WIDE
SUB & B
IC8301 CXA2123AQ-T6 MAIN CHROMA IC
IC8302 TC7SET08FU-TE85R
IC8601 LF50CDT-TR +5V REG
IC8604 LF50CDT-TR +5V REG
IC8401 xx
IC8402 xx
IC8851 CXA2129Q MAIN AUDIO/VIDEO SWITCH
IC8550 xx PIP
PIP
IC8802 MC14052BD52 SUB AUDIO/VIDEO SWITCH
J8900
TO A BOARD CN1801
CN8101 50P STOB
TO OUTPUT AMP (PAGE 2)
J (1/2) INTERFACE/PIP/AUDIO/CHROMA/G. COMB FILTER

J [2/2 INTERFACE/AUDIO/CHROMA/COMB FILTER]



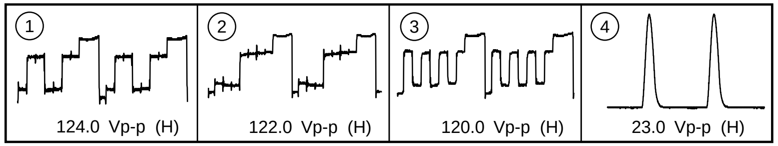
21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S
1..-28-32fc60
BCK[1]·LRCK[2]·S-DA2[3]·S-DA1[4]
L_TV[3]
R_TV[1]
MAIN-ROUT
MAIN-LOUT
AUDIO R
AUDIO L
+9V
R_OUT[9]
L_OUT[11]
Q8157 2SC2412K BUFFER
Q8156 2SC2412K BUFFER
C8225 47 16V
R8175 4.7K :CHIP
D8203 UDZ-TE-17-12B
C8223 47 16V
R8174 4.7K :CHIP
D8202 UDZ-TE-17-12B
C8144 0.47 16V B:CHIP
C8145 0.47 16V B:CHIP
HP_MUTE
J8901 2P VARIABLE OUT
R
L
R8977 330 :CHIP
C8977 0.001 B:CHIP
R8978 330 :CHIP
C8978 0.001 B:CHIP
Q8100 2SC2412K SWITCH
Q8101 2SC2412K SWITCH
R8104 12K :CHIP
R8103 12K :CHIP
C8112 22 25V
HP_L_OUT
HP_R_OUT
R8117 150 :CHIP
R8118 150 :CHIP
R8115 150 :CHIP
R8116 150 :CHIP
R8980 680 :CHIP
R8979 680 :CHIP
C8105 100 16V
C8106 100 16V
IC8101 TDA2822D013TR HP OUT
R OUT
+9V
L OUT
GND
R IN
L IN
C8108 100 16V
R8105 2.2K :CHIP
R8108 2.2K :CHIP
C8109 0.1 25V B:CHIP
C8110 0.1 25V B:CHIP
R8112 220 :CHIP
R8111 220 :CHIP
C8107 470 16V
C8111 100 16V
R8106 22K :CHIP
R8107 22K :CHIP
R8109 4.7 1/4W :FPRD
R8110 4.7 1/4W :FPRD
HP_R
HP_L
IC8601 LF90CDT-TR
+10.5V
+9V
C8601 0.22 25V B:CHIP
C8605 0.22 25V B:CHIP
C8607 47 16V
IC8603 LF50CDT-TR
+6.5V
+5V_AUDIO
C8609 0.22 25V B:CHIP
C8611 0.22 25V B:CHIP
C8613 47 16V
J (2/2)
SDA
SCL
CF8200 6.5MHz
L8200 10UH :CHIP
Q8201 2SC2412K
Q8200 2SC2412K
R8203 6.8K :CHIP
C8209 100P CH:CHIP
R8200 1K :CHIP
QSS_1
C8201 39P CH:CHIP
FL8201 BPF
R8208 330 :CHIP
R8207 XX
R8206 1K :CHIP
R8205 6.8K :CHIP
R8204 1K :CHIP
C8213 4P CH:CHIP
C8214 4P CH:CHIP
C8212 47P CH:CHIP
C8211 47P CH:CHIP
C8215 47P CH:CHIP
C8224 0.1 25V B:CHIP
R8210 100 :CHIP
X8200 18.432MHz
+5V_AUDIO
R8201 0 :CHIP
FL8200 EMI
C8210 0.1 25V B:CHIP
C8202 0.1 25V B:CHIP
C8200 47 16V
C8243 0.33 16V B:CHIP
AM1
C8204 4.7 16V F:3216
C8203 0.1 25V B:CHIP
R8216 100 :CHIP
R8217 100 :CHIP
R8218 1K :CHIP
R8219 100 :CHIP
R8220 100 :CHIP
R8221 100 :CHIP
BCK[1]
LRCK[2]
S-DA2[3]
S-DA1[4]
R8229 0 :CHIP
FL8203 EMI
C8233 47 16V
C8232 0.1 25V B:CHIP
R8230 22K :CHIP
R8222 0 :CHIP
C8238 2.2 16V F:CHIP
IC8200 MSP3410D-QA-B4 SOUND PROCESSOR
NC
SCL
SDA
I2S CLOCK
I2S WS
I2S DATA OUT
I2S DATA IN 1
ADR DATA OUT
ADR WS
ADR CLOCK OUT
+5V
D GND
I2S DATA IN
POWER ON RESET
CNTR OUT
STANDBY Q
ADDR. SELECT
DIGITAL CONTROL OUT 0
DIGITAL CONTROL OUT 1
AUDIO CLOCK OUT
XTAL OUT
XTAL IN
TEST
IF IN 2
IF COMMON IN
IF IN 1
A GND
MONO IN (AM)
REF VOLTAGE
AV MAIN R IN
AV MAIN L IN
AV R IN 2
AV L IN 2
AV R IN 3
AV L IN 3
AV R IN 4
AV L IN 4
SURROUND OUT
V REF 2
SPEAKER OUT R
SPEAKER OUT L
SUBWOOFER OUT
AV4 OUT R
AV4 OUT L
V REF 1
TV OUT R
TV OUT L
HP CAP
+8V
SP CAP
C8208 4.7 16V F:3216
C8205 0.1 F:CHIP
C8220 10 50V
C8218 10 50V
R8202 68 :CHIP
R8243 68 :CHIP
IC8202 TL431CZ
R8209 2.2K :RN-CP
R8240 1K :RN-CP
C8216 100 16V
C8219 0.1 25V
C8217 0.1 25V
R8214 0 :CHIP
R8213 0 :CHIP
R8212 0 :CHIP
R8246 XX
C8227 0.001 B:CHIP
R8211 0 :CHIP
ARESET
TO CONNECTOR CN8904 PIN B55 SHEET 1
R8215 XX
D8201 UDZ-TE-17-12B
D8200 UDZ-TE-17-12B
C8222 47 16V
C8221 47 16V
AUDIO CENTRE
AUDIO SURROUND
C8231 0.001 B:CHIP
C8230 0.001 B:CHIP
C8229 0.001 B:CHIP
C8228 0.001 B:CHIP
C[1]
S[2]
R[3]
L[4]
FL8250 XX
FL8251 XX
FL8252 XX
R8256 XX
C8258 XX
C8260 XX
C8250 XX
C8252 XX
+5V
IC8250 XX AUDIO DSP
DATA OUT 2
DATA OUT 1
DATA OUT 0
DATA IN 1
DATA IN 0
LR CLOCK OUT
WORD CLOCK OUT
BIT CLOCK OUT
BIT CLOCK IN 0
BIT CLOCK IN 1
LR CLOCK IN 0
LR CLOCK IN 1
SYNC IN
TP 0
TP 1
TP 2
TP 3
TP 4
TP 5
TP 6
TP 7
TP 8
TP 9
TP 10
TP 11
TP 12
TP 13
TP 14
TP 15
TP 16
GND
BUS MONITOR OUT
TEP 4
TEP 3
CHIP SELECT IN
XTAL IN
XTAL OUT
CLOCK SELECT
PLL OFF
PHASE DIFF OUT
LPF OUT
LPF IN
TEP 0
TEP 1
TEP 2
RESET IN
R8257 XX
R8258 XX
R8259 XX
R8250 XX
R8253 XX
C8256 XX
C8263 XX
C8251 XX
R8251 XX
R8252 XX
R8254 XX
C8253 XX
C8254 XX
C8255 XX
R8255 XX
DOLBY
C[1]·S[2]·R[3]·L[4]
L8201 100UH
L8202 XX
C8236 100 16V
C8237 0.01 B:CHIP
Q8202 2SC2412K
R8238 3.9K :CHIP
R8239 6.8K :CHIP
R8237 560 :CHIP
C8241 10 50V
C8242 47 16V
R8224 47K :CHIP
R8225 47K :CHIP
R8226 47K :CHIP
R8227 47K :CHIP
R8232 47K :CHIP
R8234 47K :CHIP
R8236 47K :CHIP
R8231 47K :CHIP
IC8201 MC3403NS-E20 OUTPUT AMP
CENTER OUT
REF
CENTER IN
LEFT IN
LEFT OUT
SUR. OUT
SUR. IN
RIGHT IN
RIGHT OUT
C8234 0.47 16V B:CHIP
C8235 0.47 16V B:CHIP
C8239 0.47 16V B:CHIP
C8240 0.47 16V B:CHIP
AUDIO CENT
AUDIO SUR
R8223 47K :CHIP
R8228 47K :CHIP
R8233 47K :CHIP
R8235 47K :CHIP
R8262 XX
R8263 XX
C8265 XX
R8244 XX
R8242 XX
R8245 XX
C8266 XX
R8241 XX
TO 50 PIN CONNECTOR (PAGE 1)
C_OUT[1]·L_OUT[2]·R_OUT[3]·S_OUT[4]
C_OUT[1]
L_OUT[2]
R_OUT[3]
S_OUT[4]
CN8102 3P VH *S-WIDRO
GND
TO U BOARD CN7990
STU_LR
R8169 XX
R8170 XX
R8173 XX
R8172 XX
R8113 XX
R8114 XX
R8171 XX
Q8155 XX
C8161 XX
JR8101 XX
QSS_2
C8150 XX
R8150 XX
R8151 XX
R8152 XX
Q8150 XX
R8153 XX
R8156 XX
R8159 XX
D8150 XX
D8151 XX
D8152 XX
R8155 XX
R8158
R8161 XX
CF8150 XX
CF8151 XX
CF8152 XX
R8154 XX
R8157 XX
R8160 XX
Q8153 XX
Q8152 XX
Q8151 XX
AM_2
R8162 XX
C8151 XX
C8152 XX
R8163 XX
C8153 XX
C8155 XX
IC8150 XX
AM IN
DEC
FM SIF
MUTE
DEM
SW
AF OUT
VOL
C8160 XX
C8154 XX
R8164 XX
C8156 XX
C8157 XX
C8159 XX
Q8154 XX
C8158 XX
L8203 XX
L8150 100UH
R8165 0 :CHIP
IC8151 CXA1875AM-T4 I2C SWITCH
SW1
SW0
DA4
DA3
DA2
DA1
DA0
SA2
SA1
SA0
SW3
SW2
R8167 100 :CHIP
SUB TUNER

C [R, G, B OUT]

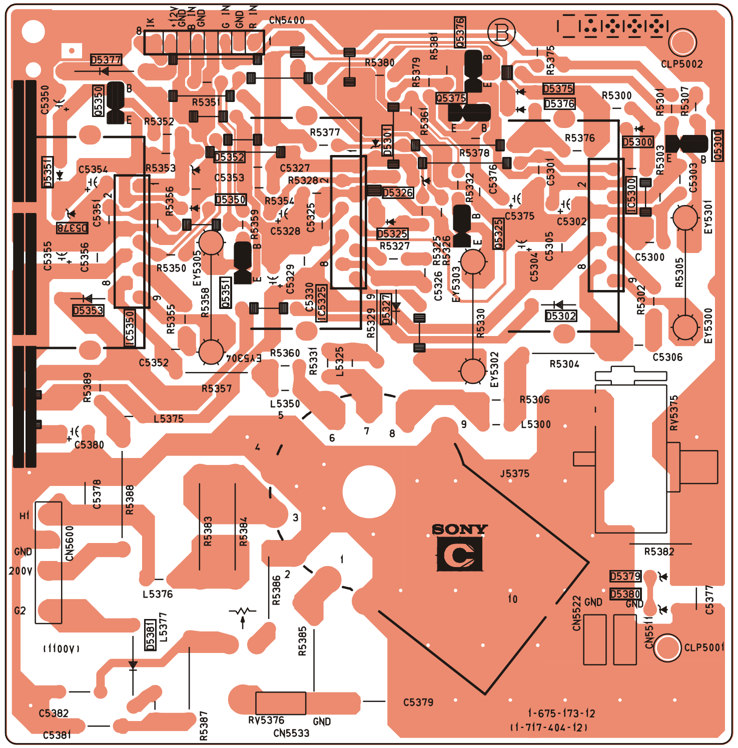


C..-28-32FC60
IC5300 TDA6111Q/N4 VIDEO OUT RED
IC5325 TDA6111Q/N4 VIDEO OUT GREEN
IC5350 TDA6111Q/N4 VIDEO OUT BLUE
CN5400 8P WHT S-MICRO
RED IN
GND
GREEN IN
GND
BLUE IN
GND
+12V
IK
TO E BOARD CN4500
CN5600 4P WHT MINI
H1
GND
+200V
G2 (+1100V)
TO D BOARD CN6500
CN5511 1P TAB
TO COATING EARTH
CN5522 1P TAB
J5375
FV Focus
Q5300 2SC2551O
Q5325 2SC2551O
Q5351 2SC2551O STANDBY SW
Q5375 2SC1740S-RT VOLTAGE DET
Q5376 2SA933AS-RT VOLTAGE DET
Q5350 DTA144ESA-TP
D5351 1SS133T-77 POWER ON SWITCH
D5377 GP08DPKG23
D5378 MTZJ-T-77-13B
D5379 MTZJ-T-77-2.2A
D5380 MTZJ-T-77-2.2A
D5326 MTZJ-9.1
L5375 47UH
+12V
+200V
R
G
B
C R.G.B OUT
KV-28FC60 - W66LLX060X
KV-32FC60 - W76LLZ060X
V901
PICTURE TUBE
KG KB G2
H
CV KR G1 G4
HV
TO D BOARD (T6804)

Waveforms C Board

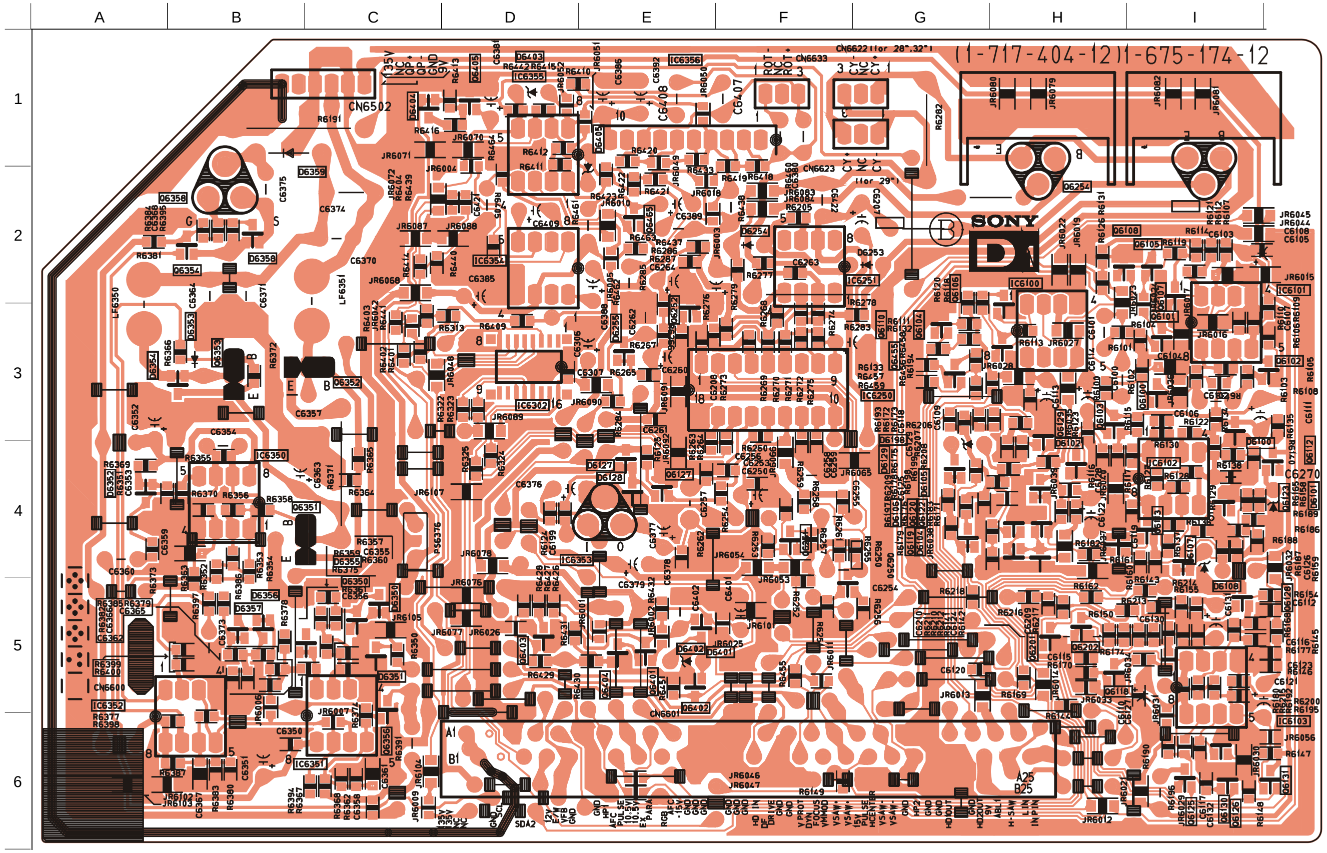


C [PRINTED WIRING BOARD]



CN5400
CLP5002
CLP5001
J5375
SONY
C
RV5375
RV5376
CN5533
CN5600
CN5522
CN5511
H1
GND
200V
G2
(1100V)
1-675-173-12
(1-717-404-12)

D1 [PRINTED WIRING BOARD]



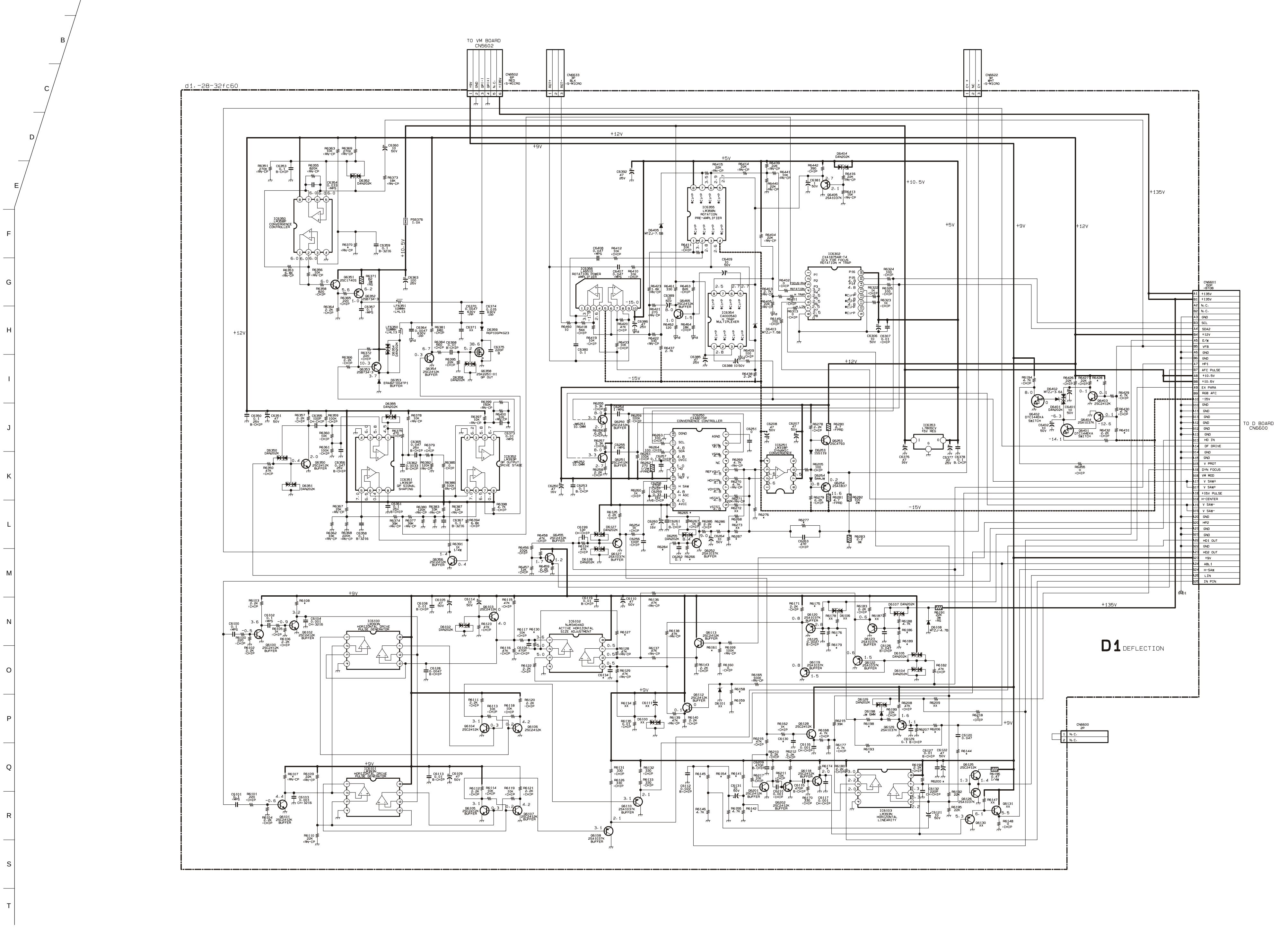
IC	
IC6100	H - 3
IC6101	I - 3
IC6102	I - 4
IC6103	I - 5
IC6250	F - 3
IC6251	F - 2
IC6302	D - 3
IC6350	B - 4
IC6351	C - 5
IC6352	B - 5
IC6353	E - 4
IC6354	D - 2
IC6355	D - 1
IC6356	E - 1

TRANSISTOR	
Q6100	I - 3
Q6101	I - 2
Q6102	I - 3
Q6103	H - 3
Q6104	G - 3
Q6105	I - 2
Q6106	G - 3
Q6107	I - 2
Q6108	H - 2
Q6110	G - 3
Q6112	I - 3
Q6113	I - 4
Q6118	H - 5
Q6119	G - 4
Q6120	G - 4
Q6122	G - 4
Q6123	I - 4
Q6125	I - 6
Q6126	I - 6
Q6127	E - 4
Q6128	I - 5
Q6129	H - 3
Q6201	H - 5
Q6202	H - 5
Q6250	G - 5
Q6251	F - 4
Q6252	E - 2
Q6253	I - 1
Q6254	H - 2
Q6350	C - 4
Q6351	B - 4
Q6352	C - 3
Q6353	B - 3
Q6354	A - 3
Q6356	C - 6
Q6258	A - 2
Q6401	E - 5
Q6402	E - 5
Q6403	D - 5
Q6404	E - 5
Q6405	D - 1
Q6455	G - 3
Q6456	E - 2

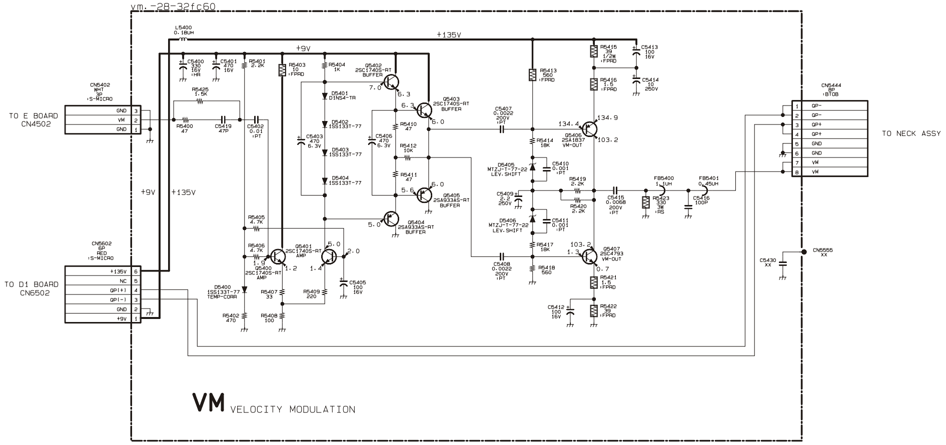
DIODE	
D6102	H - 3
D6104	H - 4
D6105	H - 4
D6107	I - 4
D6108	I - 4
D6127	E - 4
D6128	E - 4
D6129	G - 4
D6198	G - 3
D6253	G - 2
D6254	F - 2
D6255	E - 3
D6350	C - 5
D6351	C - 5
D6352	A - 4
D6353	B - 3
D6354	A - 3
D6355	C - 4
D6358	B - 2
D6359	B - 2
D6401	E - 5
D6402	E - 5
D6403	D - 1
D6404	C - 1
D6405	E - 1

Ref	28FC60	28FC60/Z	32FC60	32FC60/Z
C6130	220PF	220PF	-	-
C6134	10PF	10PF	-	-
R6107	1.8K	1.8K	2.2K	2.2K
R6108	1.8K	1.8K	2.2K	2.2K
R6127	2.2K	2.2K	3.3K	3.3K
R6130	470K	470K	510K	510K
R6141	22K	22K	15K	15K
R6142	6.2K	6.2K	4.7K	4.7K
R6144	220K	220K	120K	120K
R6145	1.5K	1.5K	1.8K	1.8K
R6154	5.6K	5.6K	1K	1K
R6158	2.2K	2.2K	4.7K	4.7K
R6159	2.2K	2.2K	SHORT 0	SHORT 0
R6161	6.8K	6.8K	8.2K	8.2K
R6174	12K	12K	22K	22K
R6175	4.7K	4.7K	6.8K	6.8K
R6176	SHORT 0	SHORT 0	8.2K	8.2K
R6179	4.7K	4.7K	SHORT 0	SHORT 0
R6186	680	680	3.9K	3.9K
R6189	2.7K	2.7K	SHORT 0	SHORT 0
R6193	100PF	100PF	-	-
R6198	47K	47K	22K	22K
R6200	68K	68K	-	-
R6206	270K	270K	220K	220K
R6207	470K	470K	220K	220K
R6265	150K	150K	220K	220K
R6266	-	-	470K	470K
R6268	22K	22K	68K	68K
R6276	12K	12K	30K	30K
R6277	12K	12K	30K	30K
R6284	470K	470K	330K	330K
R6286	10K	10K	8.2K	8.2K
R6287	10K	10K	22K	22K
R6370	10K	10K	12K	12K
R6428	180K	180K	150K	150K
R6431	560K	560K	470K	470K

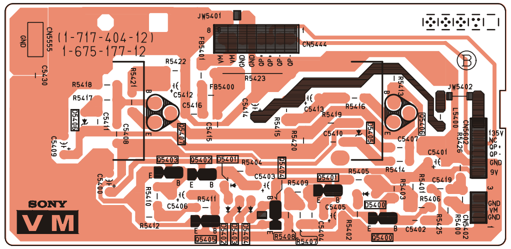
D1 [DEFLECTION]


d1.-28-32fc60
TO VM BOARD
CN5602
CN6502
6P
RED
:S-MICRO
+9V
GND
QP(-)
QP(+)
N.C.
+135V
CN6633
3P
BLK
:S-MICRO
ROT+
ROT-
CN6622
3P
WHT
:S-MICRO
CY +
NC
CY -
+12V
+9V
+5V
+10.5V
+135V
-15V
IC6350 LM358P CONVERGENCE CONTROLLER
IC6355 LM358N ROTATION PRE-AMPLIFIER
IC6356 LA6500 ROTATION POWER AMPLIFIER
IC6354 MULTIPLEXER
IC6302 CXA1875AM-T4 D/A FOR FOCUS ROTATION H TRAP
IC6351 LM393P QP SIGNAL SHAPING
IC6352 LM393P QP OUTPUT DRIVE STAGE
IC6250 CONVERGENCE CONTROLLER
IC6251 CONVERGENCE
IC6353 L7805CV +5V REG
IC6100 HORIZONTAL DRIVE PULSE GENERATOR
IC6102 ACTIVE HORIZONTAL SIZE ADJUSTMENT
IC6101 HORIZONTAL DRIVE PULSE GENERATOR
IC6103 LM393N HORIZONTAL LINEARITY
CN6601
50P
:BTOB
A1 +135V
B1 +135V
A2 N.C.
B2 N.C.
A3 GND
B3 SCL
A4 SDA2
B4 +12V
A5 E/W
B5 VFB
A6 GND
B6 GND
A7 HP1
B7 AFC PULSE
A8 +10.5V
B8 +10.5V
A9 EX PARA
B9 RGB AFC
A10 -15V
B10 GND
A11 GND
B11 GND
A12 GND
B12 GND
A13 GND
B13 HD IN
A14 DF DRIVE
B14 GND
A15 GND
B15 V PROT
A16 DYN FOCUS
B16 VM MOD
A17 V SAW+
B17 V SAW+
A18 +15V PULSE
B18 H-CENTER
A19 V SAW-
B19 V SAW-
A20 GND
B20 HP2
A21 GND
B21 GND
A22 HD1 OUT
B22 GND
A23 HD2 OUT
B23 +9V
A24 ABL1
B24 H-SAW
A25 LIN
B25 IN PIN
GND1
TO D BOARD
CN6600
CN6600
2P
N.C.
N.C.
D1 DEFLECTION

VM [VELOCITY MODULATION]

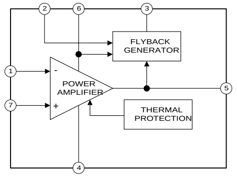

vm-28-32fc60
TO E BOARD CN4502
TO D1 BOARD CN6502
TO NECK ASSY
+135V
+9V
VM VELOCITY MODULATION

VM [PRINTED WIRING BOARD]

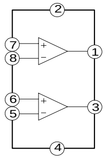

1-717-404-12
1-675-177-12
SONY
VM

5-4. IC BLOCK DIAGRAMS

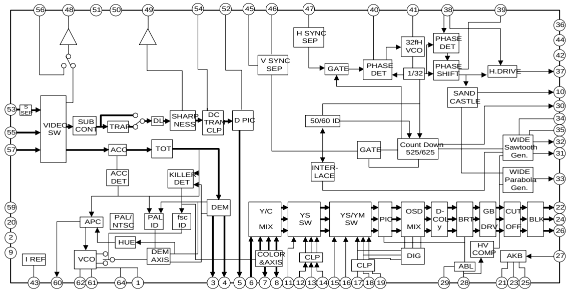
D BOARD IC6700 STV 9379


FLYBACK GENERATOR
POWER AMPLIFIER
THERMAL PROTECTION
1
2
3
4
5
6
7

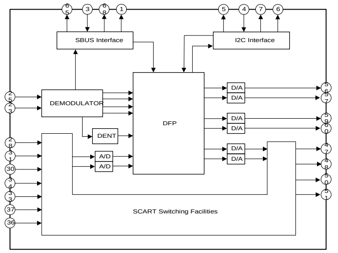
J BOARD IC8101 TDA2822D



E BOARD IC4301 CXA2100Q-TL

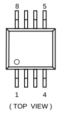

H SYNC SEP
V SYNC SEP
GATE
PHASE DET
32fH VCO
1/32
PHASE DET
PHASE SHIFT
H.DRIVE
SAND CASTLE
50/60 ID
GATE
Count Down 525/625
WIDE Sawtooth Gen.
WIDE Parabola Gen.
INTER-LACE
VIDEO SW
SUB CONT
TRAP
DL
SHARP-NESS
DC TRAN CLP
D PIC
ACC
TOT
ACC DET
KILLER DET
DEM
APC
PAL/NTSC
PAL ID
fsc ID
HUE
VCO
DEM AXIS
I REF
Y/C MIX
YS SW
YS/YM SW
PIC
OSD MIX
D-COL y
BRT
GB DRV
CUT OFF
BLK
HV COMP
AKB
COLOR &AXIS
CLP
CLP
DIG
ABL

J BOARD IC8200 MSP3410D-QA-B4

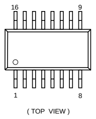

SBUS Interface
I2C Interface
DEMODULATOR
DFP
DENT
A/D
A/D
D/A
D/A
D/A
D/A
D/A
D/A
SCART Switching Facilities

5-5. SEMICONDUCTORS

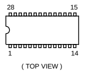
BA7046F
BA7046F-T1
LM393PS-E20
MB3793-42NF
MB3793-42NF-ER
NJM2240M
NJM2240M(TE2)
NJM3404AD


8
5
1
4
(TOP VIEW)

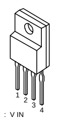
CXA1875AM-T4
HE4094BT
MC14052BDR2
MC74F157ADR2
SN74LS221D
74HCT4046AD/S470


16
9
1
8
(TOP VIEW)

CXD2053S
TDA4780/V3

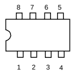

28
15
1
14
(TOP VIEW)

KA78R05TU
KA78R09TU
KA78R33TU

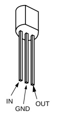


1 : V IN
2 : V OUT
3 : GND
4 : ON/OFF CONTROL

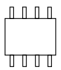
LM393D
M5216P
M24C32-BN6
ST24C16FB6
TDA2822M
UPC393C



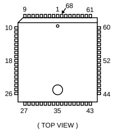
LM78L05ACZ
LM78L12ACZ
L78L05ACZ-AP
L78L12ACZ-AP



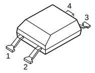
MB3793-42PNF-ER



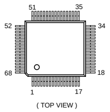
MSP3410D-QA-B4
SAA7185WP
SDA5273P-C134-GEG
SDA5275
SDA9280B22


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

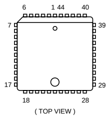
PC123F2
PC123FY2



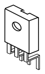
P83C654EBA/585


51
35
52
34
68
18
1
17
(TOP VIEW)

SAA4952WP/V1


6
1
44
40
7
39
17
29
18
28
(TOP VIEW)

SBX1981-51



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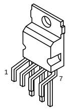

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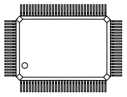

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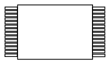

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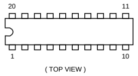
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(TOP VIEW)

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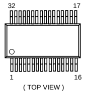
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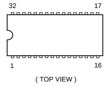
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(TOP VIEW)

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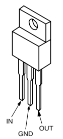

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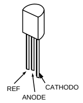
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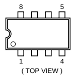
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(TOP VIEW)

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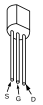

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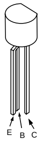

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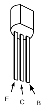

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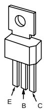

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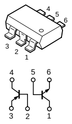
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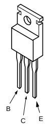
IRF620



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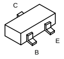
DTA144EK-T146	DTC144EK-T146
DTC114EK	DTC114YKA-T146
DTC114YKA-T146	2SA1037K-T146-R
DTC123EK	2SA1162-G
DTC123EK-T146	2SC2412K-QR
DTC124EKA-T146	2SC2412K-T146-R



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DTC144ESA-TP	2SC1740S-RT
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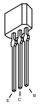
2SA733-K	



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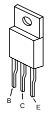

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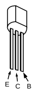

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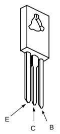

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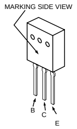
MARKING SIDE VIEW
B
C
E

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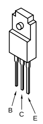

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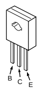

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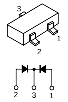

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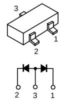

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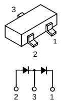

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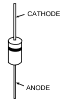
D1N54-TR	RGP15GPKG23
EGP20G	S2LA20F
EL1Z	1SS133T-77
R2K-V1	1SS83
	1SS83TD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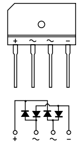

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ERA82-004TP1
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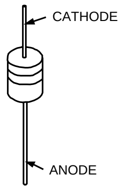
MTZJ-T-77-15
MTZJ-T-77-2.2A
MTZJ-T-77-22
MTZJ-T-77-33C
MTZJ-T-77-3.6A
MTZJ-T-77-4.7B
MTZJ-T-77-5.6B
MTZJ-T-77-6.8
MTZJ-T-77-7.5B
MTZJ-T-77-9.1
MTZJ-T-77-13B
MTZJ-T-77-12
MTZJ-33C
RD5.6ESB2
RD9.1ESB2
P6KE200AG23
1SS119-25
1SS119-25TD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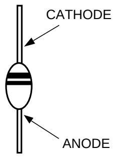
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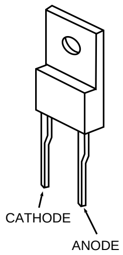
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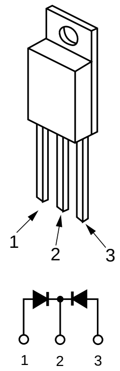

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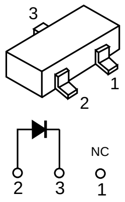
MA3033L-TX
MA3056M-TX
MA3062M-TX
MA3030-H-(TX)



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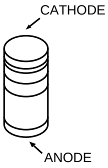
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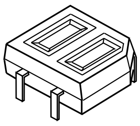

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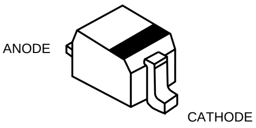
UDZ-TE-5.6B
UDZ-TE-17-6.2B
UDZ-TE-17-6.8B
UDZ-TE-17-8.2B
UDZ-TE-12B
ISS355TE-17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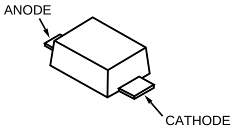

ANODE
CATHODE

SECTION 6
EXPLODED VIEWS

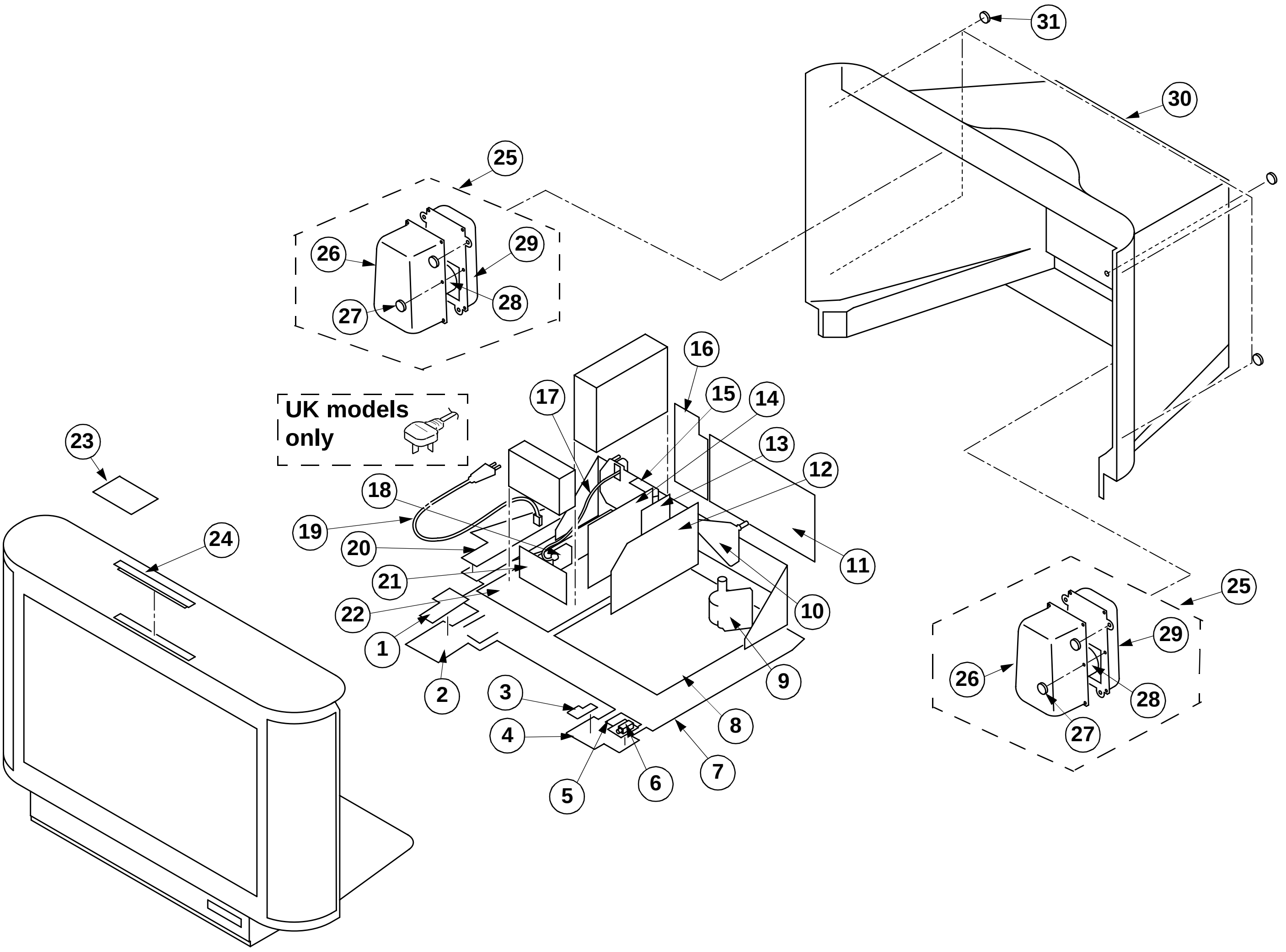
Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

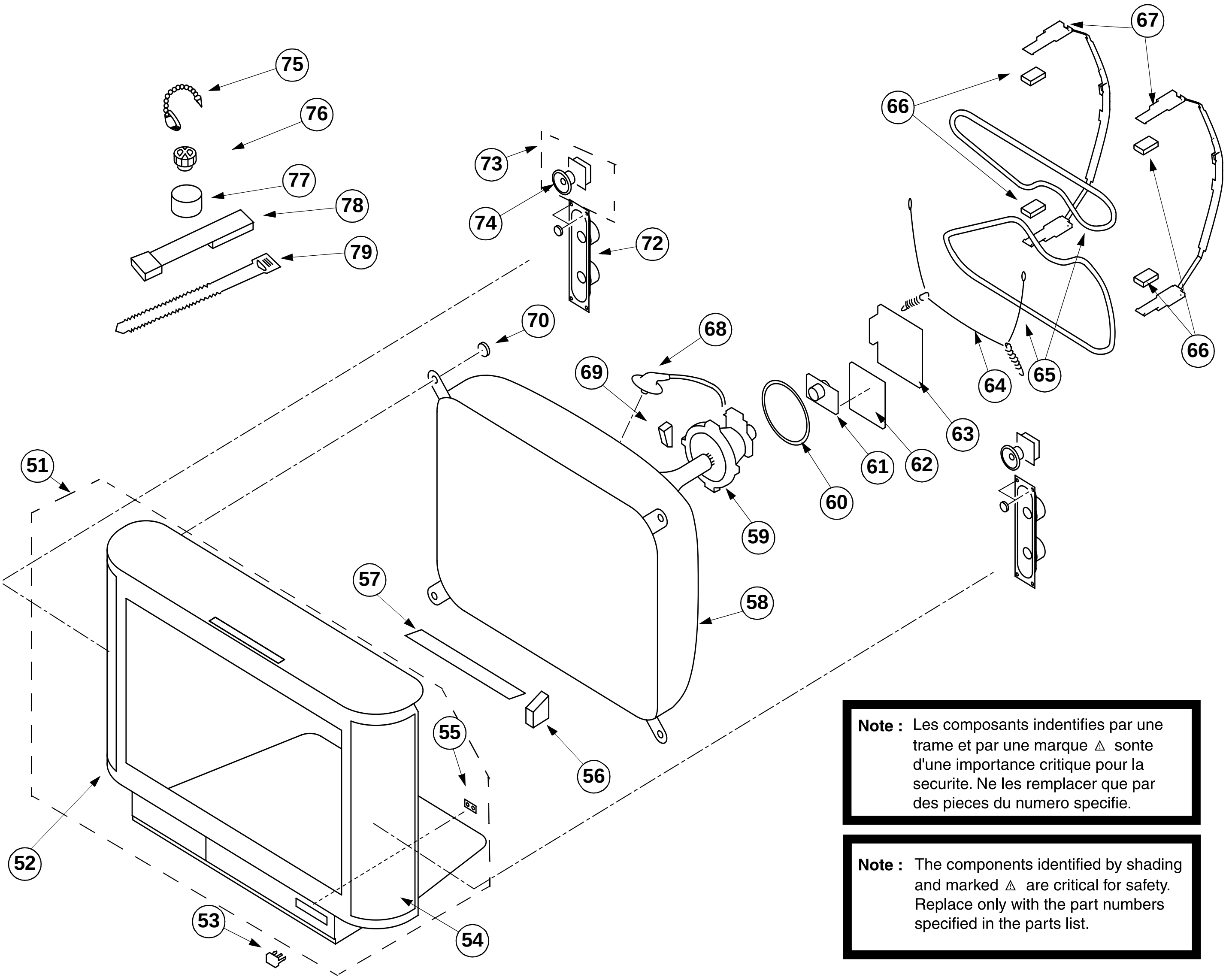
6-1. CHASSIS



REF. NO.		PART.NO	DESCRIPTION	REMARK
1		*A-1646-194-A	H3 BOARD, COMPLETE	
2		*4-205-007-11	BRACKET, H3	
3		*A-1646-193-A	H2 BOARD, COMPLETE	
4		*4-205-005-11	BRACKET, H2	
5		*A-1624-084-A	F2 BOARD, COMPLETE	
6	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
7		*4-204-549-02	BRACKET, MAIN	
8		*A-1640-328-A	D BOARD, COMPLETE (KV-28FC60/28FC60/Z)	
		*A-1640-323-A	D BOARD, COMPLETE (KV-32FC60/32FC60/Z)	
9	⚠	1-453-319-11	TRANSFORMER ASSY, FLYBACK (NX-4512/U214)	
10		*4-204-476-03	BRACKET, J1	
11		*A-1651-119-A	J BOARD, COMPLETE	
12		*A-1640-369-A	D1 BOARD, COMPLETE (KV-28FC60/28FC60/Z)	
		*A-1640-366-A	D1 BOARD, COMPLETE (KV-32FC60/32FC60/Z)	
13		*A-1640-348-A	E BOARD, COMPLETE (KV-28FC60/28FC60/Z)	
		*A-1640-347-A	E BOARD, COMPLETE (KV-32FC60/32FC60/Z)	
14		*A-1620-112-A	B1 BOARD, COMPLETE	
15		*4-204-477-03	BRACKET, J2	
16		*A-1648-026-A	U BOARD, COMPLETE	
17		1-790-082-11	CABLE, RF	
18		1-693-340-11	TUNER/VIF (FR)	
19	⚠	1-769-185-21	CORD, POWER (WITH CONNECTOR)	
20		*A-1624-083-A	F1 BOARD, COMPLETE	
21		*A-1634-047-A	M BOARD, COMPLETE	
22		*A-1631-051-A	A BOARD, COMPLETE	
23		*A-1646-195-A	H4 BOARD, COMPLETE	
24		1-771-599-11	SWITCH, ARRAY (KV-28FC60/32FC60)	
		1-771-799-11	ARRAY, SWITCH (KV-28FC60/Z/32FC60/Z)	
25		*A-1678-177-A	WOOFER ASSY SP	26-29

REF. NO.	PART.NO	DESCRIPTION	REMARK
26	*4-204-776-21	BOX, WOOFER	
27	7-685-663-71	SCREW (4X16), (+) BV TAPPING	
28	1-529-417-11	SPEAKER (8CM)	
29	*4-204-775-21	BAFFLE WOOFER	
30	4-205-036-11	COVER, REAR (KV-28FC60/28FC60/Z)	
	4-205-002-11	COVER, REAR (KV-32FC60)	
	4-205-002-01	COVER, REAR (KV-32FC60/Z)	
31	4-039-358-01	SCREW (4x16)	

6-2. PICTURE TUBE



Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF. NO.	PART.NO	DESCRIPTION	REMARK
51	X-4200-533-2	BEZNET ASSY (KV-28FC60)	55
	X-4200-533-1	BEZNET ASSY (KV-28FC60/Z)	
	X-4200-513-2	BEZNET ASSY (KV-32FC60)	
	X-4200-513-1	BEZNET ASSY (KV-32FC60/Z)	
52	*X-4200-537-1	SPEAKER COVER ASSY, CLOTH (KV-28FC60/32FC60)	
53	4-205-004-11	BUTTON, POWER	
54	*X-4200-534-1	SPEAKER COVER ASSY (L) METAL (KV-28FC60/Z/32FC60/Z)	
	*X-4200-535-1	SPEAKER COVER ASSY (R) METAL (KV-28FC60/Z/32FC60/Z)	
55	4-205-003-01	LIGHT GUIDE	
56	*4-203-098-01	SUPPORTER, CRT (KV-32FC60/32FC60/Z)	
57	4-203-128-41	SHEET, BLOTTING	
58	⚠ 8-737-786-05	PICTURE TUBE (W66LLX060X) (SD-299) (KV-28FC60/28FC60/Z)	
	⚠ 8-735-054-05	PICTURE TUBE (W76LLZ060X) (SD-302) (KV-32FC60/32FC60/Z)	
59	⚠ 1-451-481-11	DEFLECTION YOKE (Y28RVC2) (KV-28FC60/32FC60/Z)	
	⚠ 1-451-480-11	DEFLECTION YOKE (Y32RVC2) (KV-32FC60/32FC60/Z)	
60	1-452-896-11	COIL, NA ROTATION (RT200)	
61	⚠ 8-453-011-11	NECK ASSY, NA299-M	
62	*A-1644-103-A	VM BOARD, COMPLETE	
63	*A-1638-132-A	C BOARD, COMPLETE	

REF. NO.		PART.NO	DESCRIPTION	REMARK
64		4-200-433-01	SPRING, EXTENSION	
65	⚠	1-416-466-11	COIL, DEMAGNETIC (KV-28FC60/28FC60/Z)	
	⚠	1-416-769-11	COIL, DEMAGNETIC (KV-32FC60/32FC60/Z)	
66		*4-203-390-21	CUSHION, DGC (KV-28FC60/28FC60/Z)	
		*4-203-390-31	CUSHION, DGC (KV-32FC60/32FC60/Z)	
67		*4-057-303-01	HOLDER, DGC (KV-28FC60/28FC60/Z)	
		*4-059-569-01	HOLDER, DGC (KV-32FC60/32FC60/Z)	
68	⚠	1-251-317-63	CAP ASSY, HIGH-VOLTAGE	
69		4-203-658-01	SPACER, DY	
70		4-036-188-01	SCREW, SELF TAPPING (KV-28FC60/28FC60/Z)	
		4-204-225-01	PT SCREW (KV-32FC60/32FC60/Z)	

REF. NO.	PART.NO	DESCRIPTION	REMARK
72	1-529-154-11	SPEAKER (5.7X24CM)	
73	*A-1678-178-A	TWEETER SUB ASSEMBLY	74
74	1-529-155-11	SPEAKER (4.2X2.7CM)	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
77	1-452-032-00	MAGNET, DISK; 10MM	
78	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
79	3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

PARTS LISTING TABLE OF CONTENTS

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F2 BOARD COMPLETE Parts List : 101

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M BOARD COMPLETE Parts List : 104

C BOARD COMPLETE Parts List : 106

D BOARD COMMMON Parts List : Parts common to all models listed in this manual 107

D BOARD VARIANT Parts List : Parts that belong only to the model specified

Model

KV-28FC60/28FC60/Z 112

KV-32FC60/32FC60/Z 112

E BOARD COMMON Parts List : Parts common to all models listed in this manual 112

E BOARD VARIANT Parts List : Parts that belong only to the model specified

Model

KV-28FC60/28FC60/Z 114

KV-32FC60/32FC60/Z 114

D1 BOARD COMMMON Parts List : Parts common to all models listed in this manual 114

D1 BOARD VARIANT Parts List : Parts that belong only to the model specified

Model

KV-28FC60/28FC60/Z 118

KV-32FC60/32FC60/Z 118

VM BOARD COMPLETE Parts List : 119

H2 BOARD COMPLETE Parts List : 120

H3 BOARD COMPLETE Parts List : 120

H4 BOARD COMPLETE Parts List : 120

U BOARD COMPLETE Parts List : 120

J BOARD COMPLETE Parts List : 120

MISCELLANEOUS : 127

ACCESSORIES AND PACKAGING MATERIALS : 127

Note : Refer to the designated variant parts list when seeking a part indicated by an asterisk (*)

Parts indicated (#) on the Schematic Diagram are not used in this model and therefore do not appear in the Parts List.

*A-1620-112-A B1 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION		REMARK	
C2301	1-126-934-11	ELECT	220MF	20%	16V
C2302	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2303	1-126-964-11	ELECT	10MF	20%	50V
C2304	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C2305	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C2306	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C2307	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2308	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C2309	1-126-934-11	ELECT	220MF	20%	16V
C2311	1-126-963-11	ELECT	4.7MF	20%	50V
C2312	1-126-963-11	ELECT	4.7MF	20%	50V
C2313	1-126-963-11	ELECT	4.7MF	20%	50V
C2314	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C2315	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C2316	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C2317	1-162-638-11	CERAMIC CHIP	1MF		16V
C2318	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C2319	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C2320	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C2323	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C2324	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2325	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2327	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2328	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2329	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2330	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2331	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2332	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C2333	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2334	1-126-964-11	ELECT	10MF	20%	50V
C2335	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2337	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C2338	1-126-934-11	ELECT	220MF	20%	16V
C2339	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2340	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2342	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2343	1-126-961-11	ELECT	2.2MF	20%	50V
C2344	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2345	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2346	1-126-964-11	ELECT	10MF	20%	50V
C2347	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C2348	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C2349	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2350	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2351	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2354	1-126-934-11	ELECT	220MF	20%	16V
C2356	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2358	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2361	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2362	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2363	1-126-934-11	ELECT	220MF	20%	16V
C2364	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C2366	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C2367	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2368	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2371	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C2372	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2374	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C2377	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2378	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2380	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C2381	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2385	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2387	1-136-250-11	FILM	0.001MF	2%	100V
C2388	1-136-479-11	FILM	0.001MF	1%	100V
C2389	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C2390	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2391	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2704	1-126-934-11	ELECT	220MF	20%	16V
C2705	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION
CN2100	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P

< FILTER >

REF. NO.	PART.NO	DESCRIPTION
FL2300	1-236-071-11	ENCAPSULATED COMPONENT
FL2301	1-233-767-21	FILTER
FL2302	1-236-071-11	ENCAPSULATED COMPONENT
FL2303	1-236-071-11	ENCAPSULATED COMPONENT
FL2308	1-233-736-21	FILTER, EMI

< IC >

REF. NO.	PART.NO	DESCRIPTION
IC2300	8-759-991-41	IC LM78L05ACZ
IC2301	8-759-295-09	IC TLC2932IPW
IC2302	8-759-257-59	IC TDA8755T-T
IC2303	8-759-438-64	IC SAA4952WP/V1
IC2304	8-759-546-02	IC SAA4995WP-V1-T3
IC2305	8-759-295-09	IC TLC2932IPW

B1

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC2307	8-759-546-04	IC SAA4991WP-V1-T3	
IC2308	8-759-572-55	IC P83C654EBA/585	
IC2310	8-759-991-41	IC LM78L05ACZ	
IC2311	8-759-467-19	IC SDA9280B22	
IC2312	8-759-576-70	IC MSM5412222A-25JS-DR1	
IC2313	8-759-576-70	IC MSM5412222A-25JS-DR1	
IC2314	8-759-439-26	IC SN74LS221D	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L2300	1-408-597-31	INDUCTOR 3.3UH	
L2301	1-410-435-21	INDUCTOR 220UH	
L2302	1-410-435-21	INDUCTOR 220UH	
L2303	1-408-597-31	INDUCTOR 3.3UH	
L2304	1-414-186-31	INDUCTOR 33UH	
L2305	1-408-603-31	INDUCTOR 10UH	
L2306	1-414-186-31	INDUCTOR 33UH	
L2307	1-414-384-11	INDUCTOR 5.6UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q2301	1-801-806-11	TRANSISTOR DTC144EKA	
Q2302	1-801-806-11	TRANSISTOR DTC144EKA	
Q2303	1-801-806-11	TRANSISTOR DTC144EKA	
Q2304	1-801-806-11	TRANSISTOR DTC144EKA	
Q2305	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2306	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R2300	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R2301	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
R2302	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R2303	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R2304	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R2305	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R2306	1-216-295-91	SHORT 0	
R2307	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2310	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2312	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2313	1-216-047-91	RES,CHIP 820 5% 1/10W	
R2314	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R2315	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R2316	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2317	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2320	1-216-295-91	SHORT 0	
R2321	1-216-295-91	SHORT 0	
R2337	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2338	1-216-295-91	SHORT 0	
R2341	1-216-295-91	SHORT 0	
R2345	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2348	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R2355	1-216-295-91	SHORT 0	
R2356	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R2358	1-216-295-91	SHORT 0	
R2359	1-216-001-00	RES,CHIP 10 5% 1/10W	
R2360	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R2361	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R2362	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2363	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2364	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2365	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2366	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2367	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2368	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2369	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2370	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2371	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2372	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R2373	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R2374	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2375	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2376	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2377	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2378	1-216-029-00	RES,CHIP 150 5% 1/10W	
R2379	1-216-076-00	RES,CHIP 13K 5% 1/10W	
R2380	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2381	1-216-021-00	RES,CHIP 68 5% 1/10W	
R2382	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2383	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2384	1-216-021-00	RES,CHIP 68 5% 1/10W	
R2385	1-216-037-00	RES,CHIP 330 5% 1/10W	
R2386	1-216-295-91	SHORT 0	
R2387	1-216-027-00	RES,CHIP 120 5% 1/10W	
R2388	1-216-037-00	RES,CHIP 330 5% 1/10W	
R2389	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R2390	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2391	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2392	1-216-295-91	SHORT 0	
R2393	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2394	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2395	1-216-295-91	SHORT 0	
R2400	1-216-295-91	SHORT 0	
R2403	1-216-295-91	SHORT 0	
R2404	1-216-295-91	SHORT 0	
R2410	1-216-037-00	RES,CHIP 330 5% 1/10W	

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
R2411	1-216-037-00	RES,CHIP	330 5% 1/10W
R2412	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W
R2413	1-216-664-11	METAL CHIP	3.6K 0.50% 1/10W
R2415	1-216-295-91	SHORT	0
R2701	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2702	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2703	1-216-025-91	RES,CHIP	100 5% 1/10W
R2704	1-216-025-91	RES,CHIP	100 5% 1/10W
R2705	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2706	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2711	1-216-001-00	RES,CHIP	10 5% 1/10W
R2713	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2714	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R2715	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2716	1-216-025-91	RES,CHIP	100 5% 1/10W
R2717	1-216-295-91	SHORT	0
R2718	1-216-295-91	SHORT	0
R2719	1-216-295-91	SHORT	0
R2720	1-216-295-91	SHORT	0
R2721	1-216-295-91	SHORT	0
R2722	1-216-295-91	SHORT	0
R2723	1-216-027-00	RES,CHIP	120 5% 1/10W
R2724	1-216-295-91	SHORT	0
R2725	1-216-009-91	RES,CHIP	22 5% 1/10W
R2726	1-216-295-91	SHORT	0
R2727	1-216-295-91	SHORT	0
R2728	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2734	1-216-295-91	SHORT	0
R2735	1-216-021-00	RES,CHIP	68 5% 1/10W
R2736	1-216-295-91	SHORT	0
R2738	1-216-025-91	RES,CHIP	100 5% 1/10W
		< CRYSTAL >	
X2300	1-579-175-11	VIBRATOR, CERAMIC	

*A-1624-083-A F1 Board, Complete

REF. NO.	PART.NO	DESCRIPTION	REMARK
	*4-374-846-01	COVER, CAPACITOR, CAP TYPE	
		< CAPACITOR >	
C7626	⚠ 1-136-527-12	FILM	0.47MF 20% 300V
		< CONNECTOR >	
CN7611	⚠ *1-580-844-11	PIN, CONNECTOR (POWER)	
CN7622	1-695-915-11	TAB (CONTACT)	
CN7633	⚠ *1-580-843-11	PIN, CONNECTOR (POWER)	
		< FUSE >	
F7626	⚠ 1-532-299-00	FUSE	
	⚠ *1-533-725-11	HOLDER, FUSE (F7626)	
		< FILTER >	
LF7627	⚠ 1-433-488-11	TRANSFORMER, LINE FILTER	
		< RESISTOR >	
R7626	⚠ 1-202-885-91	SOLID	1M 20% 1/2W
R7627	⚠ 1-220-797-11	CEMENTED	0.47 5% 10W F
		< VARISTOR >	
VDR7626	⚠ 1-801-268-51	VARISTOR ERZV14D471	

*A-1624-084-A F2 Board, Complete

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< CONNECTOR >	
CN7700	⚠ *1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN7733	⚠ *1-580-843-11	PIN, CONNECTOR (POWER)	
		< SWITCH >	
S7751	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)	

*A-1631-051-A A Board, Complete

REF. NO.	PART.NO	DESCRIPTION	REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	*4-931-401-01	HEAT SINK, V.OUT	
		< CAPACITOR >	
C1100	1-104-664-11	ELECT	47MF 20% 25V
C1101	1-126-943-11	ELECT	2200MF 20% 25V
C1126	1-162-568-11	CERAMIC CHIP	0.33MF 10% 16V
C1127	1-137-194-81	FILM	0.47MF 5% 50V
C1128	1-163-135-00	CERAMIC CHIP	560PF 5% 50V
C1129	1-115-339-11	CERAMIC CHIP	0.1MF 10% 50V
C1130	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C1131	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C1132	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C1133	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C1134	1-126-961-11	ELECT	2.2MF 20% 50V
C1135	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C1136	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C1137	1-126-953-11	ELECT	2200MF 20% 35V
C1138	1-126-953-11	ELECT	2200MF 20% 35V
C1139	1-104-329-11	CERAMIC CHIP	0.1MF 10% 50V
C1140	1-111-142-91	ELECT	150MF 20% 63V

A

REF. NO.	PART.NO	DESCRIPTION		REMARK
C1141	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1151	1-162-568-11	CERAMIC CHIP 0.33MF	10%	16V
C1152	1-137-194-81	FILM 0.47MF	5%	50V
C1153	1-163-135-00	CERAMIC CHIP 560PF	5%	50V
C1154	1-115-339-11	CERAMIC CHIP 0.1MF	10%	50V
C1155	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C1156	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C1157	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C1158	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1159	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1160	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1161	1-104-329-11	CERAMIC CHIP 0.1MF	10%	50V
C1162	1-111-142-91	ELECT 150MF	20%	63V
C1163	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1176	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1177	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1178	1-126-964-11	ELECT 10MF	20%	50V
C1179	1-126-964-11	ELECT 10MF	20%	50V
C1180	1-126-952-11	ELECT 1000MF	20%	35V
C1181	1-126-952-11	ELECT 1000MF	20%	35V
C1182	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1183	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1184	1-107-823-11	CERAMIC CHIP 0.47MF	10%	16V
C1185	1-107-823-11	CERAMIC CHIP 0.47MF	10%	16V
C1226	1-104-661-91	ELECT 330MF	20%	16V
C1227	1-115-340-91	CERAMIC CHIP 0.22	10%	25V
C1326	1-163-059-91	CERAMIC CHIP 0.01MF	10%	50V
C1327	1-126-934-11	ELECT 220MF	20%	10V
C1328	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C1601	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1602	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1603	1-126-933-11	ELECT 100MF	20%	16V
C1604	1-126-933-11	ELECT 100MF	20%	16V
C1605	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1607	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1608	1-126-934-11	ELECT 220MF	20%	16V
C1610	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1611	1-126-933-11	ELECT 100MF	20%	16V
C1615	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
		< CONNECTOR >		
CN1111	*1-564-520-11	PLUG, CONNECTOR 5P		
CN1200	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		
CN1401	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P		
CN1600	1-900-903-64	CONNECTOR ASSY 20P		
CN1601	1-900-903-64	CONNECTOR ASSY 20P		
CN1602	1-900-903-64	CONNECTOR ASSY 20P		

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1666	1-695-915-11	TAB (CONTACT)	
CN1700	*1-568-879-11	PIN, CONNECTOR 4P	
CN1701	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
CN1702	*1-568-880-51	PIN, CONNECTOR 5P	
CN1703	1-764-334-11	PLUG, CONNECTOR 11P	
CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1811	1-695-915-11	TAB (CONTACT)	
CN1901	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
		< DIODE >	
D1100	8-719-914-43	DIODE DAN202K	
D1101	8-719-914-44	DIODE DAP202K	
D1102	8-719-914-43	DIODE DAN202K	
D1103	8-719-914-43	DIODE DAN202K	
D1104	8-719-914-43	DIODE DAN202K	
D1201	8-719-976-96	DIODE DTZ4.7C	
D1401	8-719-069-56	DIODE UDZS-TE17-6.2B	
D1402	8-719-069-56	DIODE UDZS-TE17-6.2B	
D1403	8-719-069-56	DIODE UDZS-TE17-6.2B	
D1404	8-719-069-56	DIODE UDZS-TE17-6.2B	
D1405	8-719-914-44	DIODE DAP202K	
D1406	8-719-914-44	DIODE DAP202K	
D1407	8-719-069-55	DIODE UDZS-TE17-5.6B	
D1408	8-719-069-55	DIODE UDZS-TE17-5.6B	
D1626	8-719-914-43	DIODE DAN202K	
D1627	8-719-914-43	DIODE DAN202K	
D1629	8-719-914-43	DIODE DAN202K	
		< FERRITE BEAD >	
FB1126	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB1127	1-410-397-21	FERRITE 1.1UH	
FB1151	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB1152	1-410-397-21	FERRITE 1.1UH	
FB1901	1-414-553-11	FERRITE 0UH	
FB1903	1-414-553-11	FERRITE 0UH	
FB1904	1-414-553-11	FERRITE 0UH	
FB1905	1-414-553-11	FERRITE 0UH	
FB1906	1-414-553-11	FERRITE 0UH	
FB1907	1-414-553-11	FERRITE 0UH	
		< IC >	
IC1126	8-759-544-25	IC TDA7482	
IC1151	8-759-544-25	IC TDA7482	
IC1176	8-759-333-24	IC LM1876TF	
IC1400	8-752-072-94	IC CXA1875AM-T4	
IC1601	8-759-574-76	IC KA78R05-SYDTU	
IC1602	8-759-574-78	IC KA278R05-YDTU	

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC1604	8-759-544-13	IC KA78R09TU	
		< COIL >	
L1126	1-416-857-11	INDUCTOR 65UH	
L1127	1-414-158-11	INDUCTOR 2.2UH	
L1128	1-414-158-11	INDUCTOR 2.2UH	
L1151	1-416-857-11	INDUCTOR 65UH	
L1152	1-414-158-11	INDUCTOR 2.2UH	
L1153	1-414-158-11	INDUCTOR 2.2UH	
L1326	1-414-183-41	INDUCTOR 10UH	
		< TRANSISTOR >	
Q1100	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1226	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1227	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1229	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q1326	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1327	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1328	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1329	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1400	8-729-046-47	TRANSISTOR KSC2500-BTA	
Q1601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1626	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		< RESISTOR >	
JR1069	1-216-190-91	RES, CHIP 470 5% 1/8W	
JR1204	1-216-296-91	SHORT 0	
JR1601	1-216-296-91	SHORT 0	
R1001	1-216-295-91	SHORT 0	
R1002	1-216-295-91	SHORT 0	
R1003	1-216-295-91	SHORT 0	
R1004	1-216-295-91	SHORT 0	
R1005	1-216-295-91	SHORT 0	
R1006	1-216-295-91	SHORT 0	
R1100	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1101	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R1103	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1104	1-216-296-91	SHORT 0	
R1126	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R1127	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1128	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1151	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R1152	1-216-075-00	RES,CHIP 12K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R1153	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1176	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R1177	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R1178	1-216-357-00	METAL OXIDE 4.7 5% 1W	F
R1179	1-216-357-00	METAL OXIDE 4.7 5% 1W	F
R1180	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R1181	1-216-045-00	RES,CHIP 680 5% 1/10W	
R1182	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R1183	1-216-045-00	RES,CHIP 680 5% 1/10W	
R1184	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1185	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1201	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1202	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R1203	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R1204	1-216-071-00	RES,CHIP 8.2K 5% 1/10W	
R1205	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1206	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1208	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1209	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R1210	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1227	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1228	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1229	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1230	1-216-055-00	RES,CHIP 1.8K 5% 1/10W	
R1232	1-216-295-91	SHORT 0	
R1233	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R1326	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1327	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1328	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1329	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1330	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1331	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1332	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1333	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R1334	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R1335	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1336	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1337	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1338	1-216-001-00	RES,CHIP 10 5% 1/10W	
R1339	1-216-041-00	RES,CHIP 470 5% 1/10W	
R1340	1-216-043-91	RES,CHIP 560 5% 1/10W	
R1342	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1400	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
R1401	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R1403	1-216-295-91	SHORT 0	
R1404	1-216-295-91	SHORT 0	
R1405	1-216-025-91	RES,CHIP 100 5% 1/10W	

A **M**

REF. NO.	PART.NO	DESCRIPTION	REMARK
R1407	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1408	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1409	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1410	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1411	1-216-295-91	SHORT 0	
R1412	1-216-295-91	SHORT 0	
R1601	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R1602	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R1603	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1605	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R1609	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1610	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R1615	1-216-025-91	RES,CHIP 100 5% 1/10W	
R1616	1-216-304-11	RES,CHIP 3.3 5% 1/10W	
R1618	1-216-295-91	SHORT 0	
R1621	1-216-027-00	RES,CHIP 120 5% 1/10W	
R1622	1-216-029-00	RES,CHIP 150 5% 1/10W	
R1625	1-216-295-91	SHORT 0	

< TUNER >

TU1326	1-693-340-11	TUNER/VIF (FR)	

*A-1634-047-A M Board, Complete

< CAPACITOR >

C9100	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9101	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9102	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9104	1-104-664-11	ELECT 47MF 20% 25V	
C9105	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9110	1-165-321-11	CERAMIC CHIP 0.68MF 10% 16V	
C9111	1-164-157-11	CERAMIC CHIP 0.068MF 10% 25V	
C9112	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9113	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9114	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9115	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9117	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9118	1-104-664-11	ELECT 47MF 20% 25V	
C9119	1-163-259-91	CERAMIC CHIP 220PF 5% 50V	
C9121	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9122	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9123	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9124	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9125	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9126	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C9127	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C9128	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	

REF. NO.	PART.NO	DESCRIPTION	REMARK
C9129	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C9130	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C9131	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C9132	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9400	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9500	1-104-664-11	ELECT 47MF 20% 25V	
C9502	1-104-664-11	ELECT 47MF 20% 25V	
C9503	1-126-964-11	ELECT 10MF 20% 50V	
C9504	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9505	1-104-665-11	ELECT 100MF 20% 25V	
C9506	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9507	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9508	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9509	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9510	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9511	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9512	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9513	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C9514	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C9515	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C9516	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C9517	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C9518	1-115-340-11	CERAMIC CHIP 0.22MF 10% 25V	
C9519	1-126-964-11	ELECT 10MF 20% 50V	
C9520	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	

< CONNECTOR >

CN9101	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	

< DIODE >

D9100	8-719-988-61	DIODE 1SS355TE-17	
D9101	8-719-988-61	DIODE 1SS355TE-17	
D9102	8-719-988-61	DIODE 1SS355TE-17	
D9103	8-719-988-61	DIODE 1SS355TE-17	
D9104	8-719-069-57	DIODE UDZS-TE17-6.8B	
D9105	8-719-914-43	DIODE DAN202K	
D9109	8-719-105-91	DIODE RD5.6M-B2	

< FILTER >

FL9101	1-236-071-11	ENCAPSULATED COMPONENT	
FL9500	1-236-071-11	ENCAPSULATED COMPONENT	
FL9501	1-236-071-11	ENCAPSULATED COMPONENT	

< IC >

IC9100	8-759-988-13	IC LM393PS	
IC9104	8-759-259-18	IC MB3793-42PNF	
IC9105	8-759-544-30	IC SAB-C161R1-LM	

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC9107	8-759-395-27	IC TC55257DFTL-70V	
IC9108	8-759-531-64	IC M24C32-BN6	
IC9109	8-759-597-97	IC M27C800-100K1-AE515	
IC9110	8-759-559-96	IC HEF4094BT	
IC9500	8-759-034-47	IC MC74F00M-T2	
IC9501	8-759-483-52	IC HYB514400BJ-60	
IC9502	8-759-438-62	IC SDA5275	
	< COIL >		
L9400	1-412-029-11	INDUCTOR CHIP 10UH	
L9401	1-412-029-11	INDUCTOR CHIP 10UH	
	< TRANSISTOR >		
Q9100	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9106	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9107	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9108	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9109	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q9110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9500	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9501	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9503	1-801-806-11	TRANSISTOR DTC144EKA	
Q9504	1-801-806-11	TRANSISTOR DTC144EKA	
	< RESISTOR >		
R9100	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9101	1-216-033-00	RES,CHIP 220 5%	1/10W
R9102	1-216-033-00	RES,CHIP 220 5%	1/10W
R9103	1-216-025-91	RES,CHIP 100 5%	1/10W
R9104	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9105	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9107	1-216-025-91	RES,CHIP 100 5%	1/10W
R9108	1-216-025-91	RES,CHIP 100 5%	1/10W
R9109	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9110	1-216-081-00	RES,CHIP 22K 5%	1/10W
R9111	1-216-025-91	RES,CHIP 100 5%	1/10W
R9112	1-216-025-91	RES,CHIP 100 5%	1/10W
R9113	1-216-033-00	RES,CHIP 220 5%	1/10W
R9114	1-216-083-00	RES,CHIP 27K 5%	1/10W
R9115	1-216-081-00	RES,CHIP 22K 5%	1/10W
R9116	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9117	1-216-073-00	RES,CHIP 10K 5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK
R9119	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9120	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9121	1-216-017-91	RES,CHIP 47 5%	1/10W
R9122	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9123	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9127	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9138	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9140	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R9141	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9142	1-216-041-00	RES,CHIP 470 5%	1/10W
R9143	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9144	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R9145	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9146	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9147	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9148	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9149	1-216-025-91	RES,CHIP 100 5%	1/10W
R9150	1-216-025-91	RES,CHIP 100 5%	1/10W
R9151	1-216-025-91	RES,CHIP 100 5%	1/10W
R9153	1-216-025-91	RES,CHIP 100 5%	1/10W
R9159	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9161	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9162	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9164	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9166	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9168	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9169	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9172	1-216-069-00	RES,CHIP 6.8K 5%	1/10W
R9173	1-216-295-91	SHORT 0	
R9174	1-216-025-91	RES,CHIP 100 5%	1/10W
R9175	1-216-025-91	RES,CHIP 100 5%	1/10W
R9176	1-216-025-91	RES,CHIP 100 5%	1/10W
R9177	1-216-025-91	RES,CHIP 100 5%	1/10W
R9178	1-216-025-91	RES,CHIP 100 5%	1/10W
R9184	1-216-025-91	RES,CHIP 100 5%	1/10W
R9185	1-216-025-91	RES,CHIP 100 5%	1/10W
R9186	1-216-025-91	RES,CHIP 100 5%	1/10W
R9187	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R9188	1-216-025-91	RES,CHIP 100 5%	1/10W
R9189	1-216-025-91	RES,CHIP 100 5%	1/10W
R9190	1-216-025-91	RES,CHIP 100 5%	1/10W
R9191	1-216-025-91	RES,CHIP 100 5%	1/10W
R9192	1-216-025-91	RES,CHIP 100 5%	1/10W
R9193	1-216-097-91	RES,CHIP 100K 5%	1/10W
R9194	1-216-097-91	RES,CHIP 100K 5%	1/10W
R9195	1-216-097-91	RES,CHIP 100K 5%	1/10W
R9196	1-216-073-00	RES,CHIP 10K 5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK
R9197	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9500	1-216-295-91	SHORT 0	
R9501	1-216-295-91	SHORT 0	
R9502	1-216-295-91	SHORT 0	
R9504	1-216-041-00	RES,CHIP 470 5%	1/10W
R9505	1-216-051-00	RES,CHIP 1.2K 5%	1/10W
R9506	1-216-073-00	RES,CHIP 10K 5%	1/10W
R9507	1-216-097-91	RES,CHIP 100K 5%	1/10W
R9508	1-216-017-91	RES,CHIP 47 5%	1/10W
R9509	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9510	1-216-017-91	RES,CHIP 47 5%	1/10W
R9511	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9512	1-216-017-91	RES,CHIP 47 5%	1/10W
R9513	1-216-017-91	RES,CHIP 47 5%	1/10W
R9514	1-216-017-91	RES,CHIP 47 5%	1/10W
R9515	1-216-295-91	SHORT 0	
R9516	1-216-295-91	SHORT 0	
R9517	1-216-295-91	SHORT 0	
R9518	1-216-049-91	RES,CHIP 1K 5%	1/10W
R9519	1-216-039-00	RES,CHIP 390 5%	1/10W
R9520	1-216-039-00	RES,CHIP 390 5%	1/10W
R9521	1-216-039-00	RES,CHIP 390 5%	1/10W
R9522	1-216-295-91	SHORT 0	
R9523	1-216-295-91	SHORT 0	
R9524	1-216-295-91	SHORT 0	
R9525	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R9526	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R9527	1-216-057-00	RES,CHIP 2.2K 5%	1/10W
R9528	1-216-025-91	RES,CHIP 100 5%	1/10W
R9529	1-216-025-91	RES,CHIP 100 5%	1/10W
R9530	1-216-025-91	RES,CHIP 100 5%	1/10W
R9531	1-216-295-91	SHORT 0	

< CRYSTAL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
X9101	1-781-107-21	VIBRATOR, SERAMIC	
X9500	1-760-551-21	VIBRATOR, CERAMIC	

*A-1638-132-A C Board, Complete

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C5301	1-102-129-00	CERAMIC 0.01MF 10%	50V
C5302	1-128-528-11	ELECT 470MF 20%	16V
C5304	1-107-666-11	ELECT 1MF 20%	350V
C5305	1-136-207-11	FILM 0.047MF 10%	400V
C5306	1-102-157-00	CERAMIC 560PF 10%	500V
C5325	1-102-959-91	CERAMIC 22PF 5%	50V
C5326	1-102-157-00	CERAMIC 560PF 10%	500V
C5327	1-102-129-00	CERAMIC 0.01MF 10%	50V
C5328	1-128-528-11	ELECT 470MF 20%	16V
C5329	1-107-967-11	ELECT 1MF 20%	400V
C5350	1-107-907-11	ELECT 22MF 20%	50V
C5352	1-102-157-00	CERAMIC 560PF 10%	500V
C5353	1-102-129-00	CERAMIC 0.01MF 10%	50V
C5354	1-128-528-11	ELECT 470MF 20%	16V
C5355	1-107-666-11	ELECT 1MF 20%	350V
C5356	1-136-207-11	FILM 0.047MF 10%	400V
C5375	1-107-902-11	ELECT 1MF 20%	50V
C5377	1-162-115-00	CERAMIC 330PF 10%	2KV
C5378	1-162-116-00	CERAMIC 680PF 10%	2KV
C5379	1-162-114-00	CERAMIC 0.0047MF	2KV
C5380	1-107-652-11	ELECT 10MF 20%	250V
C5381	1-162-116-00	CERAMIC 680PF 10%	2KV
C5382	1-162-114-00	CERAMIC 0.0047MF	2KV

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN5400	*1-564-511-11	PLUG, CONNECTOR 8P	
CN5511	1-695-915-11	TAB (CONTACT)	
CN5600	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D5300	8-719-911-19	DIODE 1SS119-25	
D5302	8-719-901-83	DIODE 1SS83	
D5325	8-719-911-19	DIODE 1SS119-25	
D5326	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D5327	8-719-901-83	DIODE 1SS83	
D5350	8-719-911-19	DIODE 1SS119-25	
D5351	8-719-991-33	DIODE 1SS133T-77	
D5353	8-719-901-83	DIODE 1SS83	
D5375	8-719-991-33	DIODE 1SS133T-77	
D5376	8-719-991-33	DIODE 1SS133T-77	
D5377	8-719-908-03	DIODE GP08D	
D5378	8-719-921-88	DIODE MTZJ-13B	
D5379	8-719-982-96	DIODE MTZJ-T-77-2.2A	
D5380	8-719-982-96	DIODE MTZJ-T-77-2.2A	
D5381	8-719-031-34	DIODE RGP02-20EG23	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC5300	8-759-360-83	IC TDA6111Q/N4	
IC5325	8-759-360-83	IC TDA6111Q/N4	
IC5350	8-759-360-83	IC TDA6111Q/N4	

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

C **D**

< SOCKET >

REF. NO.		PART.NO	DESCRIPTION				REMARK
J5375	⚠	1-540-071-22	SOCKET, CRT				

< COIL >

REF. NO.		PART.NO	DESCRIPTION				REMARK
L5300		1-414-932-21	INDUCTOR	4.7UH			
L5325		1-414-932-21	INDUCTOR	4.7UH			
L5350		1-414-932-21	INDUCTOR	4.7UH			
L5375		1-414-938-21	INDUCTOR	47UH			
L5376		1-532-637-00	LINK, IC 1A (ICP-F25)				
L5377		1-414-183-41	INDUCTOR	10UH			

< TRANSISTOR >

REF. NO.		PART.NO	DESCRIPTION				REMARK
Q5300		8-729-255-12	TRANSISTOR 2SC2551-O				
Q5325		8-729-255-12	TRANSISTOR 2SC2551-O				
Q5350		8-729-029-56	TRANSISTOR DTA144ESA				
Q5351		8-729-255-12	TRANSISTOR 2SC2551-O				
Q5375		8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q5376		8-729-026-39	TRANSISTOR 2SA933AS-QT				

< RESISTOR >

REF. NO.		PART.NO	DESCRIPTION				REMARK
R5300		1-249-417-11	CARBON	1K	5%	1/4W	
R5301		1-249-413-11	CARBON	470	5%	1/4W	
R5302		1-249-408-11	CARBON	180	5%	1/4W	
R5303		1-249-417-11	CARBON	1K	5%	1/4W	
R5304		1-202-565-00	SOLID	470	20%	1/2W	
R5305		1-215-926-00	METAL OXIDE	33K	5%	3W	F
R5306		1-249-424-11	CARBON	3.9K	5%	1/4W	
R5307		1-247-863-91	CARBON	22K	5%	1/4W	
R5325		1-249-417-11	CARBON	1K	5%	1/4W	
R5326		1-249-413-11	CARBON	470	5%	1/4W	
R5327		1-249-408-11	CARBON	180	5%	1/4W	
R5328		1-249-417-11	CARBON	1K	5%	1/4W	
R5329		1-202-565-00	SOLID	470	20%	1/2W	
R5330		1-215-926-00	METAL OXIDE	33K	5%	3W	F
R5331		1-249-424-11	CARBON	3.9K	5%	1/4W	
R5332		1-247-863-91	CARBON	22K	5%	1/4W	
R5350		1-249-417-11	CARBON	1K	5%	1/4W	
R5351		1-249-413-11	CARBON	470	5%	1/4W	
R5352		1-249-416-11	CARBON	820	5%	1/4W	
R5353		1-249-421-11	CARBON	2.2K	5%	1/4W	
R5354		1-249-418-11	CARBON	1.2K	5%	1/4W	
R5355		1-249-408-11	CARBON	180	5%	1/4W	
R5356		1-249-417-11	CARBON	1K	5%	1/4W	
R5357		1-202-565-00	SOLID	470	20%	1/2W	
R5358		1-215-926-00	METAL OXIDE	33K	5%	3W	F
R5359		1-247-863-91	CARBON	22K	5%	1/4W	
R5360		1-249-424-11	CARBON	3.9K	5%	1/4W	
R5361		1-249-431-11	CARBON	15K	5%	1/4W	
R5375		1-249-435-11	CARBON	33K	5%	1/4W	
R5376		1-249-429-11	CARBON	10K	5%	1/4W	
R5377		1-249-430-11	CARBON	12K	5%	1/4W	
R5378		1-249-429-11	CARBON	10K	5%	1/4W	
R5379		1-249-438-11	CARBON	56K	5%	1/4W	
R5380		1-247-863-91	CARBON	22K	5%	1/4W	
R5381		1-249-420-11	CARBON	1.8K	5%	1/4W	
R5382		1-202-549-00	SOLID	100	20%	1/2W	
R5383		1-216-399-00	METAL OXIDE	6.8	5%	3W	F
R5384		1-216-399-00	METAL OXIDE	6.8	5%	3W	F
R5385		1-202-549-00	SOLID	100	20%	1/2W	
R5386		1-202-884-11	SOLID	820K	20%	1/2W	
R5387		1-202-884-11	SOLID	820K	20%	1/2W	
R5388		1-215-911-11	METAL OXIDE	100	5%	3W	F
R5389		1-249-417-11	CARBON	1K	5%	1/4W	F

< VARIABLE RESISTOR >

REF. NO.		PART.NO	DESCRIPTION				REMARK
RV5375		1-241-656-21	RES, ADJ, METAL FILM 110M				
RV5376		1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				

***A-1640-328-A D Board, Complete (KV-28FC60/28FC60/Z)**
***A-1640-323-A D Board, Complete (KV-32FC60/32FC60/Z)**

D Board Common Parts

REF. NO.		PART.NO	DESCRIPTION				REMARK
		4-201-023-01	SPACER, INSULATING				
		4-202-373-01	SPRING, IC				
		4-382-854-11	SCREW (M3X10), P, SW (+)				
		*4-931-401-01	HEAT SINK, V.OUT				

< CAPACITOR >

REF. NO.		PART.NO	DESCRIPTION				REMARK
C6600	⚠	1-162-580-51	CERAMIC	0.01MF		400V	
C6603		1-126-933-11	ELECT	100MF	20%	16V	
C6604		1-126-767-11	ELECT	1000MF	20%	16V	
C6605	⚠	1-119-888-51	CERAMIC	2200PF	20%	250V	
C6606	⚠	1-119-888-51	CERAMIC	2200PF	20%	250V	
C6607	⚠	1-136-518-12	FILM	0.33MF	20%	300V	
C6608	⚠	1-161-964-91	CERAMIC	0.0047MF		250V	
C6609	⚠	1-161-964-91	CERAMIC	0.0047MF		250V	
C6610	⚠	1-162-599-12	CERAMIC	0.0047MF		250V	
C6611	⚠	1-162-599-12	CERAMIC	0.0047MF		250V	
C6612		1-161-744-00	CERAMIC	0.01MF		400V	
C6616		1-164-625-11	CERAMIC	680PF	10%	500V	
C6617		1-164-625-11	CERAMIC	680PF	10%	500V	

D

REF. NO.	PART.NO	DESCRIPTION		REMARK	
C6618	1-136-175-00	FILM	0.68MF	5%	50V
C6619	1-137-194-91	FILM	0.47MF	5%	50V
C6620	1-136-618-11	FILM	0.047MF	5%	1.25KV
C6621	1-136-175-00	FILM	0.68MF	5%	50V
C6622	1-164-625-11	CERAMIC	680PF	10%	500V
C6623	1-137-194-91	FILM	0.47MF	5%	50V
C6624	1-126-968-11	ELECT	100MF	20%	50V
C6626	1-164-625-11	CERAMIC	680PF	10%	500V
C6627	1-164-625-11	CERAMIC	680PF	10%	500V
C6628	1-126-936-11	ELECT	3300MF	20%	16V
C6629	1-128-548-11	ELECT	4700MF	20%	25V
C6630	1-110-626-11	ELECT	330MF	20%	160V
C6631	1-126-955-11	ELECT	4700MF	20%	35V
C6632	1-126-955-11	ELECT	4700MF	20%	35V
C6634	1-136-165-00	FILM	0.1MF	5%	50V
C6635	1-104-664-11	ELECT	47MF	20%	25V
C6636	1-102-129-00	CERAMIC	0.01MF	10%	50V
C6637	1-102-129-00	CERAMIC	0.01MF	10%	50V
C6638	1-137-368-11	FILM	0.0047MF	5%	50V
C6639	1-102-228-00	CERAMIC	470PF	10%	500V
C6641	1-126-967-11	ELECT	47MF	20%	50V
C6642	1-126-964-11	ELECT	10MF	20%	50V
C6647	1-104-664-11	ELECT	47MF	20%	25V
C6649	1-126-965-11	ELECT	22MF	20%	50V
C6651	1-162-599-12	CERAMIC	0.0047MF		250V
C6652	1-107-679-91	ELECT	10MF	20%	450V
C6653	1-126-968-11	ELECT	100MF	20%	50V
C6654	1-162-117-00	CERAMIC	100PF	10%	500V
C6655	1-107-974-11	CERAMIC	47PF	5%	2KV
C6656	1-126-967-11	ELECT	47MF	20%	50V
C6657	1-126-941-11	ELECT	470MF	20%	25V
C6658	1-104-665-11	ELECT	100MF	20%	25V
C6659	1-104-665-11	ELECT	100MF	20%	25V
C6661	1-117-753-11	ELECT(BLOCK)	470MF	20%	450V
C6662	1-136-165-00	FILM	0.1MF	5%	50V
C6664	1-136-153-00	FILM	0.01MF	5%	50V
C6665	1-136-165-00	FILM	0.1MF	5%	50V
C6666	1-136-165-00	FILM	0.1MF	5%	50V
C6667	1-126-933-11	ELECT	100MF	20%	16V
C6668	1-126-933-11	ELECT	100MF	20%	16V
C6669	1-136-165-00	FILM	0.1MF	5%	50V
C6670	1-136-165-00	FILM	0.1MF	5%	50V
C6671	1-104-664-11	ELECT	47MF	20%	16V
C6672	1-104-664-11	ELECT	47MF	20%	16V
C6677	1-136-165-00	FILM	0.1MF	5%	50V
C6679	1-130-495-00	FILM	0.1MF	5%	50V
C6680	1-137-370-11	FILM	0.01MF	5%	50V

REF. NO.	PART.NO	DESCRIPTION		REMARK	
C6681	1-126-964-11	ELECT	10MF	20%	50V
C6682	1-107-679-91	ELECT	10MF	20%	450V
C6700	1-102-129-00	CERAMIC	0.01MF	10%	50V
C6703	1-128-527-11	ELECT	330MF	20%	25V
C6704	1-126-968-11	ELECT	100MF	20%	50V
C6705	1-128-527-11	ELECT	330MF	20%	25V
C6706	1-106-228-00	MYLAR	0.22MF	10%	100V
C6707	1-129-702-00	FILM	0.001MF	10%	400V
C6708	1-106-220-00	MYLAR	0.1MF	10%	100V
C6709	1-102-129-00	CERAMIC	0.01MF	10%	50V
C6710	1-130-785-11	MYLAR	0.47MF	10%	100V
C6727	1-102-228-00	CERAMIC	470PF	10%	500V
C6801	1-104-664-11	ELECT	47MF	20%	25V
C6802	1-126-960-11	ELECT	1MF	20%	50V
C6803	1-126-960-11	ELECT	1MF	20%	50V
C6804	1-102-114-00	CERAMIC	470PF	10%	50V
C6805	1-102-114-00	CERAMIC	470PF	10%	50V
C6808	1-102-030-00	CERAMIC	330PF	10%	500V
C6809	1-102-030-00	CERAMIC	330PF	10%	500V
C6810	1-107-368-11	FILM	0.047MF	10%	200V
C6811	1-107-368-11	FILM	0.047MF	10%	200V
C6812	1-162-131-11	CERAMIC	220PF	10%	2KV
C6813	1-162-134-11	CERAMIC	470PF	10%	2KV
C6816	1-130-471-00	FILM	0.001MF	5%	50V
C6817	1-125-893-11	FILM	680PF	3%	1.5KV
C6818	1-125-893-11	FILM	680PF	3%	1.5KV
C6819	1-125-893-11	FILM	680PF	3%	1.5KV
C6820	1-125-893-11	FILM	680PF	3%	1.5KV
C6824	1-107-846-11	FILM	0.1MF	5%	250V
C6827	1-107-846-11	FILM	0.1MF	5%	250V
C6828	1-127-681-11	FILM MELF	10000PF	2%	100V
C6829	1-127-680-11	FILM MELF	4700PF	2%	100V
C6830	1-107-655-11	ELECT	47MF	20%	250V
C6831	1-102-228-00	CERAMIC	470PF	10%	500V
C6832	1-126-941-11	ELECT	470MF	20%	25V
C6833	1-126-941-11	ELECT	470MF	20%	25V
C6834	1-102-228-00	CERAMIC	470PF	10%	500V
C6835	1-102-228-00	CERAMIC	470PF	10%	500V
C6836	1-123-024-21	ELECT	33MF		160V
C6837	1-106-375-12	MYLAR	0.022MF	10%	250V
C6840	1-137-370-11	FILM	0.01MF	5%	50V
C6841	1-104-664-11	ELECT	47MF	20%	16V
C6844	1-115-513-21	FILM	0.18MF	5%	250V
C6851	1-162-131-11	CERAMIC	220PF	10%	2KV
C6852	1-162-129-00	CERAMIC	150PF	10%	2KV
C6853	1-137-536-11	FILM	0.0022MF	5%	630V
C6855	1-136-205-11	FILM	0.022MF	10%	400V

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
C6856	1-102-030-00	CERAMIC 330PF 10%	500V
C6857	1-130-785-11	FILM 0.47MF 10%	100V
C6861	1-130-471-00	FILM 0.001MF 5%	50V
C6862	1-130-471-00	FILM 0.001MF 5%	50V
		< CONNECTOR >	
CN6100	1-785-802-11	CONNECTOR, 20 PIN	
CN6101	1-785-802-11	CONNECTOR, 20 PIN	
CN6102	1-785-802-11	CONNECTOR, 20 PIN	
CN6500	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN6600	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN6611	*1-785-270-12	PIN, DY CONNECTOR (PC BOARD)	
CN6620 ⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN6622	1-695-915-11	TAB (CONTACT)	
CN6666 ⚠	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6700 ⚠	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
		< DIODE >	
D6600	8-719-911-19	DIODE 1SS119-25	
D6601	8-719-063-73	DIODE D1NL20U-TR	
D6602	8-719-109-89	DIODE RD5.6ESB2	
D6603	8-719-911-19	DIODE 1SS119-25	
D6604	8-719-510-53	DIODE D4SB60L	
D6605	8-719-991-33	DIODE 1SS133T-77	
D6610	8-719-063-73	DIODE D1NL20U-TR	
D6613	8-719-911-19	DIODE 1SS119-25	
D6615	8-719-911-19	DIODE 1SS119-25	
D6616	8-719-510-12	DIODE D10SC4M	
D6617	8-719-500-71	DIODE D8LC40	
D6618	8-719-047-31	DIODE RBA-402L	
D6619	8-719-510-12	DIODE D10SC4M	
D6621	8-719-991-33	DIODE 1SS133T-77	
D6622	8-719-991-33	DIODE 1SS133T-77	
D6623	8-719-911-19	DIODE 1SS119-25	
D6624	8-719-991-33	DIODE 1SS133T-77	
D6625	8-719-991-33	DIODE 1SS133T-77	
D6626	8-719-991-33	DIODE 1SS133T-77	
D6627	8-719-982-27	DIODE MTZJ-33C	
D6628	8-719-109-97	DIODE RD6.8ESB2	
D6629	8-719-991-33	DIODE 1SS133T-77	
D6630	8-719-991-33	DIODE 1SS133T-77	
D6631	8-719-991-33	DIODE 1SS133T-77	
D6651	8-719-068-00	DIODE ERC04-06SE	
D6652	8-719-923-78	DIODE MTZJ-T-77-12	
D6653	8-719-063-73	DIODE D1NL20U-TR	
D6654	8-719-059-23	DIODE P6KE200AG23	
D6655	8-719-979-64	DIODE UF4005PKG23	
D6656	8-719-063-73	DIODE D1NL20U-TR	

REF. NO.	PART.NO	DESCRIPTION	REMARK
D6658	8-719-068-00	DIODE ERC04-06SE	
D6659	8-719-063-73	DIODE D1NL20U-TR	
D6676	8-719-991-33	DIODE 1SS133T-77	
D6677	8-719-921-40	DIODE MTZJ-4.7C	
D6678	8-719-921-40	DIODE MTZJ-4.7C	
D6679	8-719-991-33	DIODE 1SS133T-77	
D6681	8-719-991-33	DIODE 1SS133T-77	
D6700	8-719-200-02	DIODE ERA15-02	
D6701	8-719-110-41	DIODE RD15ESB2	
D6803	8-719-200-02	DIODE ERA15-02	
D6804	1-535-143-11	LEAD, JUMPER (10.0MM)	
D6805	8-719-302-43	DIODE EL1Z	
D6806	8-719-979-85	DIODE EGP20G	
D6807	8-719-510-73	DIODE S3L20UF4	
D6808	8-719-510-73	DIODE S3L20UF4	
D6809	8-719-991-33	DIODE 1SS133T-77	
D6810	1-247-895-91	CARBON 470K 5%	1/4W
D6811	8-719-110-41	DIODE RD15ESB2	
D6851	8-719-970-87	DIODE ERA38-06	
D6852	8-719-970-87	DIODE ERA38-06	
		< FERRITE BEAD >	
FB6602	1-410-396-41	FERRITE 0.45UH	
FB6603	1-410-396-41	FERRITE 0.45UH	
		< IC >	
IC6600	1-810-051-11	POWER MODULE DM-48	
IC6604	8-729-045-40	TRANSISTOR MX0842A-F	
IC6651	8-759-468-89	IC TOP209P	
IC6652	8-759-394-35	IC BA12T	
IC6653	8-759-544-13	IC KA78R09TU	
IC6654	8-759-574-76	IC KA78R05-SYDTU	
IC6667	8-759-908-15	IC TL431CLP	
IC6676	8-759-908-15	IC TL431CLP	
IC6700	8-759-192-71	IC STV9379	
IC6801	8-759-103-93	IC UPC393C	
		< COIL >	
L6604	1-412-525-31	INDUCTOR 10UH	
L6605	1-412-523-41	INDUCTOR 6.8UH	
L6606	1-412-525-31	INDUCTOR 10UH	
L6651	1-414-183-41	INDUCTOR 10UH	
L6700	1-412-524-11	INDUCTOR 8.2UH	
L6801	1-412-519-11	INDUCTOR 3.3UH	
L6802	1-412-519-11	INDUCTOR 3.3UH	
L6803	1-412-533-21	INDUCTOR 47UH	
L6805	1-408-947-00	INDUCTOR 2.2MMH	
L6806	1-410-397-21	FERRITE 1.1UH	

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The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
L6807	1-410-397-21	FERRITE 1.1UH	
L6851	1-535-303-00	LEAD, JUMPER (5.0MM)	
		< FILTER >	
LF6603	1-406-659-11	INDUCTOR 10UH	
LF6604	1-406-659-11	INDUCTOR 10UH	
LF6801	1-406-985-11	INDUCTOR 2.2MMH	
LF6851	1-406-674-11	INDUCTOR 3.3MMH	
		< IC LINK >	
PS6601 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
PS6602 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
PS6603 ⚠	1-801-549-21	PROTECTOR, MODULE 2.5A MP250	
PS6604 ⚠	1-801-550-21	PROTECTOR, MODULE 2.5A MP250	
		< TRANSISTOR >	
Q6600	8-729-046-47	TRANSISTOR KSC2500-BTA	
Q6602	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q6603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6605	8-729-046-47	TRANSISTOR KSC2500-BTA	
Q6606	8-729-029-56	TRANSISTOR DTA144ESA	
Q6607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6608	8-729-029-66	TRANSISTOR DTC114ESA	
Q6611	8-729-029-66	TRANSISTOR DTC114ESA	
Q6651	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q6652	8-729-029-86	TRANSISTOR DTC124ESA	
Q6667	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q6676	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6677	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6678	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6679	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q6680	8-729-029-66	TRANSISTOR DTC114ESA	
Q6681	8-729-029-66	TRANSISTOR DTC114ESA	
Q6700	8-729-039-68	TRANSISTOR IRF620	
Q6801	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q6802	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q6803	8-729-046-18	TRANSISTOR 2SC5480-01	
Q6804	8-729-046-18	TRANSISTOR 2SC5480-01	
Q6805	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q6806	8-729-047-59	TRANSISTOR STP5NB40FP	
Q6807	8-729-030-02	TRANSISTOR DTC144ESA	
Q6851	8-729-043-95	TRANSISTOR 2SC3840(3)	
		< RESISTOR >	
R6601 ⚠	1-202-968-11	CEMENTED 1.2 5% 10W	
R6602	1-247-863-91	CARBON 22K 5% 1/4W	
R6603	1-249-430-11	CARBON 12K 5% 1/4W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6604	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6605	1-249-417-11	CARBON 1K 5% 1/4W	F
R6606 ⚠	1-202-968-11	CEMENTED 1.2 5% 10W	
R6608 ⚠	1-220-797-11	CEMENTED 0.47 5% 10W	F
R6611	1-260-125-11	CARBON 150K 5% 1/2W	
R6612	1-260-125-11	CARBON 150K 5% 1/2W	
R6613	1-216-369-00	METAL OXIDE 1 5% 2W	F
R6614	1-260-125-11	CARBON 150K 5% 1/2W	
R6615	1-260-125-11	CARBON 150K 5% 1/2W	
R6616	1-216-369-00	METAL OXIDE 1 5% 2W	F
R6619	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6620	1-249-443-11	CARBON 0.47 5% 1/4W	F
R6624	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6625	1-249-429-11	CARBON 10K 5% 1/4W	
R6626	1-247-807-31	CARBON 100 5% 1/4W	
R6627	1-249-429-11	CARBON 10K 5% 1/4W	
R6628	1-260-129-11	CARBON 330K 5% 1/2W	
R6629	1-260-129-11	CARBON 330K 5% 1/2W	
R6630	1-249-417-11	CARBON 1K 5% 1/4W	
R6631	1-249-425-11	CARBON 4.7K 5% 1/4W	
R6632	1-207-905-00	WIREWOUND 0.27 10% 2W	F
R6633	1-249-429-11	CARBON 10K 5% 1/4W	
R6635	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6637	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6638	1-247-895-91	CARBON 470K 5% 1/4W	
R6639	1-249-416-11	CARBON 820 5% 1/4W	
R6640	1-249-417-11	CARBON 1K 5% 1/4W	
R6641	1-260-127-11	CARBON 220K 5% 1/2W	
R6642	1-249-389-11	CARBON 4.7 5% 1/4W	F
R6643	1-249-417-11	CARBON 1K 5% 1/4W	F
R6644	1-249-429-11	CARBON 10K 5% 1/4W	
R6645	1-260-131-11	CARBON 470K 5% 1/2W	
R6646	1-249-429-11	CARBON 10K 5% 1/4W	
R6647	1-249-410-11	CARBON 270 5% 1/4W	
R6648	1-247-863-91	CARBON 22K 5% 1/4W	
R6649	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R6651	1-247-791-91	CARBON 22 5% 1/4W	
R6652	1-249-389-11	CARBON 4.7 5% 1/4W	F
R6653	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6655	1-249-429-11	CARBON 10K 5% 1/4W	
R6656 ⚠	1-218-265-11	METAL 8.2M 5% 1W	
R6657	1-215-421-00	METAL 1K 1% 1/4W	
R6666	1-202-933-61	FUSIBLE 0.1 10% 1/2W	F
R6667	1-215-441-00	METAL 6.8K 1% 1/4W	
R6668	1-249-429-11	CARBON 10K 5% 1/4W	
R6669	1-249-413-11	CARBON 470 5% 1/4W	
R6676	1-249-417-11	CARBON 1K 5% 1/4W	

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION				REMARK
R6677	1-249-417-11	CARBON	1K	5%	1/4W	
R6678	1-249-417-11	CARBON	1K	5%	1/4W	
R6679	1-215-479-00	METAL	270K	1%	1/4W	
R6681	1-215-467-00	METAL	82K	1%	1/4W	
R6682	1-215-447-00	METAL	12K	1%	1/4W	
R6683	1-215-429-00	METAL	2.2K	1%	1/4W	
R6684	1-247-807-31	CARBON	100	5%	1/4W	
R6685	1-249-417-11	CARBON	1K	5%	1/4W	
R6686	1-215-449-00	METAL	15K	1%	1/4W	
R6687	1-249-431-11	CARBON	15K	5%	1/4W	
R6688	1-249-417-11	CARBON	1K	5%	1/4W	
R6689	1-247-843-11	CARBON	3.3K	5%	1/4W	
R6690	1-249-429-11	CARBON	10K	5%	1/4W	
R6691	1-215-446-00	METAL	11K	1%	1/4W	
R6692	1-215-445-00	METAL	10K	1%	1/4W	
R6700	1-215-441-00	METAL	6.8K	1%	1/4W	
R6701	1-215-437-00	METAL	4.7K	1%	1/4W	
R6702	1-215-441-00	METAL	6.8K	1%	1/4W	
R6703	1-215-437-00	METAL	4.7K	1%	1/4W	
R6704	1-249-383-11	CARBON	1.5	5%	1/4W	F
R6705	1-247-791-91	CARBON	22	5%	1/4W	
R6706	1-249-389-11	CARBON	4.7	5%	1/4W	F
R6707	1-215-888-00	METAL OXIDE	220	5%	2W	F
R6708	1-214-798-21	METAL	1.8	1%	1/2W	
R6709	1-214-798-21	METAL	1.8	1%	1/2W	
R6710	1-247-843-11	CARBON	3.3K	5%	1/4W	
R6711	1-249-418-11	CARBON	1.2K	5%	1/4W	
R6801	1-215-440-00	METAL	6.2K	1%	1/4W	
R6802	1-214-915-00	METAL	120K	1%	1/2W	
R6803	1-249-421-11	CARBON	2.2K	5%	1/4W	
R6804	1-249-408-11	CARBON	180	5%	1/4W	
R6805	1-249-408-11	CARBON	180	5%	1/4W	
R6806	1-249-411-11	CARBON	330	5%	1/4W	
R6807	1-249-411-11	CARBON	330	5%	1/4W	
R6808	1-260-340-11	CARBON	10K	5%	1/2W	
R6809	1-260-340-11	CARBON	10K	5%	1/2W	
R6811	1-216-461-00	METAL OXIDE	5.6K	5%	2W	F
R6812	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R6813	1-215-920-11	METAL OXIDE	3.3K	5%	3W	F
R6814	1-215-880-00	METAL OXIDE	10	5%	2W	F
R6815	1-215-880-00	METAL OXIDE	10	5%	2W	F
R6816	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R6817	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R6818	1-249-405-11	CARBON	100	5%	1/4W	F
R6819	1-247-807-31	CARBON	100	5%	1/4W	
R6820	1-216-391-11	METAL OXIDE	1.5	5%	3W	F
R6821	1-216-391-11	METAL OXIDE	1.5	5%	3W	F

REF. NO.	PART.NO	DESCRIPTION				REMARK
R6831	1-260-124-11	CARBON	120K	5%	1/2W	
R6832	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R6833	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R6834	1-535-303-00	LEAD, JUMPER (5.0MM)				
R6835	1-260-288-11	CARBON	0.47	5%	1/2W	
R6837	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R6838	1-214-905-11	METAL	47K	1%	1/2W	
R6839	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R6840	1-247-843-11	CARBON	3.3K	5%	1/4W	
R6842	1-260-123-11	CARBON	100K	5%	1/2W	
R6843	1-249-429-11	CARBON	10K	5%	1/4W	
R6844	1-249-441-11	CARBON	100K	5%	1/4W	
R6845	1-247-863-91	CARBON	22K	5%	1/4W	
R6851	1-260-123-11	CARBON	100K	5%	1/2W	
R6852	1-260-123-11	CARBON	100K	5%	1/2W	
R6853	1-260-123-11	CARBON	100K	5%	1/2W	
R6854	1-249-417-11	CARBON	1K	5%	1/4W	
R6880	1-215-436-00	METAL	4.3K	1%	1/4W	
R6885	1-215-493-00	METAL	1M	1%	1/4W	
R6886	1-215-477-00	METAL	220K	1%	1/4W	
R6887	1-215-461-00	METAL	47K	1%	1/4W	
R6888	1-249-441-11	CARBON	100K	5%	1/4W	
R6891	1-535-303-00	LEAD, JUMPER (5.0MM)				
R6892	1-535-303-00	LEAD, JUMPER (5.0MM)				
R6895	1-249-443-11	CARBON	0.47	5%	1/4W	F
R6896	1-249-443-11	CARBON	0.47	5%	1/4W	F
R6898	1-215-493-00	METAL	1M	1%	1/4W	
R6899	1-215-493-00	METAL	1M	1%	1/4W	

< RELAY >

REF. NO.	PART.NO	DESCRIPTION
RY6601 ⚠	1-755-266-11	RELAY, AC POWER
RY6602 ⚠	1-755-167-11	RELAY, AC POWER

< TRANSFORMER >

REF. NO.	PART.NO	DESCRIPTION
T6600	1-431-616-11	TRANSFORMER, CONVERTER
T6601 ⚠	1-433-516-11	TRANSFORMER, CONVERTER (PIT)
T6651 ⚠	1-431-732-11	TRANSFORMER, CONVERTER (SRT)
T6801	1-433-489-31	TRANSFORMER, FERRITE (HDT)
T6802	1-433-489-31	TRANSFORMER, FERRITE (HDT)
T6804 ⚠	1-453-319-11	TRANSFORMER, ASSY FLYBACK (NX-4512/U214)
T6852	1-433-487-11	TRANSFORMER, FERRITE (DFT)

< THERMISTOR >

REF. NO.	PART.NO	DESCRIPTION
TH6600 ⚠	1-809-827-11	THERMISTOR, POSITIVE
TH6700	1-800-193-00	THERMISTOR

D Board Variant Parts KV-28FC60/28FC60/Z

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
C6814	1-117-641-11	FILM	7500PF	3%	1.2KV
C6815	1-117-836-11	FILM	6800PF	3%	1.5KV
C6825	1-115-514-11	FILM	0.22MF	5%	250V
C6826	1-115-520-11	FILM	0.68MF	5%	250V

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
R6810	1-215-920-11	METAL OXIDE	3.3K	5%	3W F
R6836	1-249-432-21	CARBON	18K	5%	1/4W
R6856	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R6857	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R6858	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R6859	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R6897	1-215-485-00	METAL	470K	1%	1/4W

D Board Variant Parts KV-32FC60/32FC60/Z

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
C6814	1-117-640-11	FILM	6800PF	3%	1.2KV
C6815	1-117-835-11	FILM	6200PF	3%	1.5KV
C6825	1-117-662-11	FILM	0.18MF	5%	250V
C6826	1-115-579-11	FILM	0.56MF	5%	250V

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
R6810	1-216-484-00	METAL OXIDE	3.9K	5%	3W
R6836	1-249-431-11	CARBON	15K	5%	1/4W
R6856	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6857	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6858	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6859	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R6897	1-215-489-11	METAL	680K	1%	1/4W

*A-1640-348-A E Board, Complete (KV-28FC60/28FC60/Z)
*A-1640-347-A E Board, Complete (KV-32FC60/32FC60/Z)

E Board Common Parts

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
C4316	1-104-664-11	ELECT	47MF	20%	25V
C4317	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4318	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4319	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4320	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4321	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4322	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4324	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4325	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C4329	1-126-963-11	ELECT	4.7MF	20%	50V
C4330	1-137-581-11	FILM	0.1MF	5%	100V
C4331	1-126-959-11	ELECT	0.47MF	20%	50V
C4332	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4333	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4334	1-126-967-11	ELECT	47MF	20%	50V
C4336	1-126-967-11	ELECT	47MF	20%	50V
C4338	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4340	1-126-967-11	ELECT	47MF	20%	50V
C4342	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C4343	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4344	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C4345	1-126-967-11	ELECT	47MF	20%	50V
C4346	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4347	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4348	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4349	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4350	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4351	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C4352	1-126-967-11	ELECT	47MF	20%	50V
C4353	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C4354	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C4355	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4356	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4358	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4359	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C4360	1-126-963-11	ELECT	4.7MF	20%	50V
C4362	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4363	1-126-967-11	ELECT	47MF	20%	50V
C4364	1-126-967-11	ELECT	47MF	20%	50V
C4366	1-163-059-91	CERAMIC CHIP	0.01MF	10%	50V
C4369	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4370	1-126-967-11	ELECT	47MF	20%	50V
C4371	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C4377	1-126-960-11	ELECT	1MF	20%	50V
C4379	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C4381	1-163-259-91	CERAMIC CHIP	220PF	5%	50V

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION			REMARK
CN4101	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P			
CN4500	*1-564-511-11	PLUG, CONNECTOR 8P			
CN4502	*1-568-878-51	PIN, CONNECTOR 3P			

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< DIODE >	
D4304	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4305	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4311	8-719-914-43	DIODE DAN202K	
D4312	8-719-914-43	DIODE DAN202K	
D4313	8-719-401-63	DIODE MA3062M-TX	
		< FERRITE BEAD >	
FB4387	1-414-234-22	INDUCTOR CHIP 0UH	
FB4388	1-414-234-22	INDUCTOR CHIP 0UH	
FB4389	1-414-234-22	INDUCTOR CHIP 0UH	
		< IC >	
IC4301	8-752-090-88	IC CXA2100AQ-TL	
		< COIL >	
L4301	1-414-183-41	INDUCTOR 10UH	
L4302	1-414-183-41	INDUCTOR 10UH	
L4303	1-414-183-41	INDUCTOR 10UH	
L4304	1-414-183-41	INDUCTOR 10UH	
L4305	1-414-183-41	INDUCTOR 10UH	
L4306	1-414-183-41	INDUCTOR 10UH	
L4308	1-414-186-31	INDUCTOR 33UH	
L4309	1-414-186-31	INDUCTOR 33UH	
		< TRANSISTOR >	
Q4304	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R	
Q4307	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R	
Q4308	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R	
Q4309	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R	
Q4310	8-729-026-49	TRANSISTOR 2SA1037K-T-146-R	
Q4315	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q4316	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4317	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R4301	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4302	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4303	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4304	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4305	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4306	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4313	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R4314	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4331	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4332	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4333	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4334	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4335	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4336	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4337	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4339	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4341	1-216-295-91	SHORT 0	
R4343	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4344	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4345	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R4346	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R4347	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4348	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4350	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4354	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R4358	1-216-071-00	RES,CHIP 8.2K 5% 1/10W	
R4359	1-216-041-00	RES,CHIP 470 5% 1/10W	
R4360	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R4361	1-216-133-00	RES,CHIP 3.3M 5% 1/10W	
R4363	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4365	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4366	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4367	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4370	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R4371	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R4372	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4373	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4374	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4375	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4376	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4377	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R4378	1-216-101-00	RES,CHIP 150K 5% 1/10W	
R4379	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R4380	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4382	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R4383	1-216-079-00	RES,CHIP 18K 5% 1/10W	
R4384	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4387	1-216-031-00	RES,CHIP 180 5% 1/10W	
R4388	1-216-031-00	RES,CHIP 180 5% 1/10W	
R4389	1-216-031-00	RES,CHIP 180 5% 1/10W	
R4395	1-216-295-91	SHORT 0	
R4396	1-216-295-91	SHORT 0	
R4398	1-216-025-91	RES,CHIP 100 5% 1/10W	
R4401	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R4504	1-216-295-91	SHORT 0	
R4505	1-216-295-91	SHORT 0	
R4506	1-216-295-91	SHORT 0	

REF. NO.	PART.NO	DESCRIPTION			REMARK
R4518	1-216-025-91	RES,CHIP	100	5%	1/10W
R4519	1-216-025-91	RES,CHIP	100	5%	1/10W
R4520	1-216-295-91	SHORT	0		
R4521	1-216-295-91	SHORT	0		
R4522	1-216-295-91	SHORT	0		
R4523	1-216-295-91	SHORT	0		

< CRYSTAL >

X4300	1-767-127-11	VIBRATOR, CERAMIC

E Board Variant Parts KV-28FC60/28FC60/Z

< CAPACITOR >

C4367	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V

E Board Variant Parts KV-32FC60/32FC60/Z

< CAPACITOR >

C4367	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C4380	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V

< TRANSISTOR >

Q4318	8-729-026-49	TRANSISTOR 2SA1037AK-T-146-R

< RESISTOR >

R4403	1-216-073-00	RES, CHIP	10K	5%	1/10W
R4404	1-216-073-00	RES, CHIP	10K	5%	1/10W
R4405	1-216-689-11	RES, CHIP	39K	5%	1/10W
R4406	1-216-105-91	RES, CHIP	220K	5%	1/10W
R4407	1-216-091-00	RES, CHIP	56K	5%	1/10W

***A-1640-369-A D1 Board, Complete**
(KV-28FC60/28FC60/Z)
***A-1640-366-A D1 Board, Complete**
(KV-32FC60/32FC60/Z)

D1 Board Common Parts

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

C6100	1-136-165-00	FILM	0.1MF	5%	50V
C6101	1-136-165-00	FILM	0.1MF	5%	50V
C6102	1-136-165-00	FILM	0.1MF	5%	50V
C6103	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C6104	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C6105	1-126-967-11	ELECT	47MF	20%	50V
C6106	1-163-133-00	CERAMIC CHIP	470PF	5%	50V

REF. NO.	PART.NO	DESCRIPTION			REMARK
C6108	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C6109	1-126-967-11	ELECT	47MF	20%	50V
C6110	1-126-967-11	ELECT	47MF	20%	50V
C6112	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C6113	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C6114	1-126-964-11	ELECT	10MF	20%	50V
C6115	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C6116	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C6117	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C6119	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C6120	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C6121	1-126-964-11	ELECT	10MF	20%	50V
C6122	1-126-967-11	ELECT	47MF	20%	50V
C6125	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C6126	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C6127	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C6128	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C6129	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6131	1-126-964-11	ELECT	10MF	20%	50V
C6132	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C6199	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C6207	1-126-967-11	ELECT	47MF	20%	50V
C6208	1-126-967-11	ELECT	47MF	20%	50V
C6209	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C6210	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C6250	1-104-664-11	ELECT	47MF	20%	16V
C6251	1-216-295-91	SHORT	0		
C6253	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C6254	1-136-177-00	FILM	1MF	5%	50V
C6255	1-136-177-00	FILM	1MF	5%	50V
C6256	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C6257	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C6258	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C6259	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C6260	1-104-664-11	ELECT	47MF	20%	16V
C6261	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C6262	1-136-165-00	FILM	0.1MF	5%	50V
C6263	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C6264	1-126-964-11	ELECT	10MF	20%	50V
C6306	1-126-964-11	ELECT	10MF	20%	50V
C6307	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C6350	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6351	1-126-967-11	ELECT	47MF	20%	50V
C6353	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C6354	1-136-159-00	FILM	0.033MF	5%	50V
C6355	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C6356	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION	REMARK
C6357	1-136-165-00	FILM 0.1MF 5%	50V
C6358	1-104-329-11	CERAMIC CHIP 0.1MF 10%	50V
C6359	1-104-329-11	CERAMIC CHIP 0.1MF 10%	50V
C6360	1-107-714-11	ELECT 10MF 20%	50V
C6361	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C6362	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C6363	1-104-665-11	ELECT 100MF 20%	25V
C6364	1-136-347-11	FILM 0.0047MF 5%	630V
C6365	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C6367	1-104-329-11	CERAMIC CHIP 0.1MF 10%	50V
C6368	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C6370	1-136-347-11	FILM 0.0047MF 5%	630V
C6373	1-136-153-00	FILM 0.01MF 5%	50V
C6374	1-129-716-00	FILM 0.015MF 5%	630V
C6375	1-102-110-00	CERAMIC 220PF 10%	50V
C6376	1-104-664-11	ELECT 47MF 20%	16V
C6377	1-128-551-11	ELECT 22MF 20%	25V
C6378	1-115-339-11	CERAMIC CHIP 0.1MF 10%	50V
C6380	1-136-165-00	FILM 0.1MF 5%	50V
C6381	1-126-960-11	ELECT 1MF 20%	50V
C6385	1-104-664-11	ELECT 47MF 20%	25V
C6386	1-104-664-11	ELECT 47MF 20%	25V
C6388	1-126-964-11	ELECT 10MF 20%	50V
C6389	1-126-964-11	ELECT 10MF 20%	50V
C6392	1-104-664-11	ELECT 47MF 20%	25V
C6401	1-126-964-11	ELECT 10MF 20%	50V
C6402	1-107-714-11	ELECT 10MF 20%	50V
C6407	1-136-161-00	FILM 0.047MF 5%	50V
C6408	1-136-161-00	FILM 0.047MF 5%	50V
C6409	1-126-964-11	ELECT 10MF 20%	50V
		< CONNECTOR >	
CN6502	*1-568-881-51	PIN, CONNECTOR 6P	
CN6600	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6601	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN6622	*1-568-878-51	PIN, CONNECTOR 3P	
CN6633	*1-568-878-51	PIN, CONNECTOR 3P	
		< DIODE >	
D6102	8-719-914-43	DIODE DAN202K	
D6104	8-719-914-43	DIODE DAN202K	
D6105	8-719-914-43	DIODE DAN202K	
D6107	8-719-914-43	DIODE DAN202K	
D6108	8-719-921-40	DIODE MTZJ-4.7C	
D6127	8-719-914-43	DIODE DAN202K	
D6128	8-719-914-43	DIODE DAN202K	
D6129	8-719-914-43	DIODE DAN202K	
D6198	1-535-303-00	LEAD, JUMPER (5.0MM)	
D6253	8-719-911-19	DIODE 1SS119-25	
D6254	1-535-303-00	LEAD, JUMPER (5.0MM)	
D6255	8-719-914-43	DIODE DAN202K	
D6350	8-719-914-43	DIODE DAN202K	
D6351	8-719-914-43	DIODE DAN202K	
D6352	8-719-914-43	DIODE DAN202K	
D6353	8-719-987-87	DIODE ERA85-009	
D6354	8-719-914-43	DIODE DAN202K	
D6355	8-719-914-43	DIODE DAN202K	
D6358	8-719-914-43	DIODE DAN202K	
D6359	8-719-302-43	DIODE EL1Z	
D6401	8-719-914-43	DIODE DAN202K	
D6402	8-719-982-03	DIODE MTZJ-3.6A	
D6403	8-719-921-63	DIODE MTZJ-7.5B	
D6404	8-719-914-43	DIODE DAN202K	
D6405	8-719-921-63	DIODE MTZJ-7.5B	
		< IC >	
IC6100	8-759-450-95	IC LM393N	
IC6101	8-759-450-95	IC LM393N	
IC6102	8-759-701-50	IC NJM3404AD	
IC6103	8-759-450-95	IC LM393N	
IC6250	8-759-478-66	IC CXA8070P	
IC6251	8-759-903-16	IC LM318P	
IC6302	8-752-072-94	IC CXA1875AM-T4	
IC6350	8-759-008-70	IC LM358N	
IC6351	8-759-450-95	IC LM393N	
IC6352	8-759-450-95	IC LM393N	
IC6353	8-759-231-53	IC TA7805S	
IC6354	8-759-325-48	IC CA0005AD	
IC6355	8-759-008-70	IC LM358N	
IC6356	8-759-822-38	IC LA6510	
		< FILTER >	
LF6350	1-406-989-21	INDUCTOR 10MMH	
LF6351	1-406-989-21	INDUCTOR 10MMH	
		< IC LINK >	
PS6376 ⚠	1-532-637-00	LINK, IC 1A (ICP-N25)	
		< TRANSISTOR >	
Q6100	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

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REF. NO.	PART.NO	DESCRIPTION	REMARK
Q6105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6107	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6110	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6118	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6119	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6120	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6122	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6123	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6125	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6126	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6127	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6128	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6129	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6250	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6251	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6252	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6253	8-729-045-04	TRANSISTOR 2SC5511	
Q6254	8-729-045-05	TRANSISTOR 2SA005	
Q6350	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6351	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6352	8-729-140-97	TRANSISTOR 2SB734-34	
Q6353	8-729-140-97	TRANSISTOR 2SB734-34	
Q6354	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6356	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6358	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q6401	1-801-806-11	TRANSISTOR DTC144EKA	
Q6402	1-801-806-11	TRANSISTOR DTC144EKA	
Q6403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6455	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6465	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6100	1-216-033-00	RES,CHIP 220 5% 1/10W	
R6101	1-216-033-00	RES,CHIP 220 5% 1/10W	
R6102	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6103	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6104	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6105	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6106	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6109	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6110	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6111	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6112	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6113	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6114	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6115	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6116	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6117	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6118	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6119	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6120	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6121	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6122	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6123	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6124	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6125	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6126	1-216-037-00	RES,CHIP 330 5% 1/10W	
R6128	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6129	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6131	1-216-037-00	RES,CHIP 330 5% 1/10W	
R6132	1-216-037-00	RES,CHIP 330 5% 1/10W	
R6133	1-216-037-00	RES,CHIP 330 5% 1/10W	
R6135	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
R6136	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6137	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6138	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6139	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R6140	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6143	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6146	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6148	1-216-295-91	SHORT 0	
R6149	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6155	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6160	1-216-295-91	SHORT 0	
R6162	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6165	1-216-699-91	METAL CHIP 100K 0.50% 1/10W	
R6168	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6169	1-216-699-91	METAL CHIP 100K 0.50% 1/10W	
R6170	1-216-037-00	RES,CHIP 330 5% 1/10W	
R6171	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6177	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6180	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6182	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6183	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6188	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6190	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6191	1-215-925-11	METAL OXIDE 22K 5% 3W	F
R6192	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6194	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6195	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6196	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6199	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6205	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6208	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6210	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6211	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6212	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6215	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6216	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6217	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6218	1-216-295-91	SHORT 0	
R6254	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6255	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R6256	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6257	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R6258	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6259	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6260	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6261	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6262	1-260-321-71	CARBON 270 5% 1/2W	
R6263	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6264	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6267	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6269	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6270	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6271	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6278	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6279	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6280	1-212-849-00	FUSIBLE 4.7 5% 1/4W	F
R6281	1-212-849-00	FUSIBLE 4.7 5% 1/4W	F
R6282	1-215-886-11	METAL OXIDE 100 5% 2W	F
R6283	1-216-393-00	METAL OXIDE 2.2 5% 3W	F
R6285	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6313	1-216-295-91	SHORT 0	
R6322	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6323	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R6324	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6325	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6350	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6351	1-218-762-11	METAL CHIP 270K 0.50% 1/10W	
R6353	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R6355	1-218-774-11	METAL CHIP 820K 0.50% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6356	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6357	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6358	1-216-047-91	RES,CHIP 820 5% 1/10W	
R6359	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6360	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6361	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6362	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R6363	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6364	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6365	1-216-033-00	RES,CHIP 220 5% 1/10W	
R6366	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6367	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R6368	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R6369	1-218-762-11	METAL CHIP 270K 0.50% 1/10W	
R6371	1-216-474-11	METAL OXIDE 82 5% 3W	F
R6372	1-216-033-00	RES,CHIP 220 5% 1/10W	
R6373	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R6374	1-216-689-11	METAL CHIP 39K 0.50% 1/10W	
R6375	1-216-041-00	RES,CHIP 470 5% 1/10W	
R6377	1-216-689-11	METAL CHIP 39K 0.50% 1/10W	
R6378	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6379	1-216-295-91	SHORT 0	
R6380	1-218-754-11	METAL CHIP 120K 0.50% 1/10W	
R6381	1-216-045-00	RES,CHIP 680 5% 1/10W	
R6382	1-218-754-11	METAL CHIP 120K 0.50% 1/10W	
R6383	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R6384	1-216-043-91	RES,CHIP 560 5% 1/10W	
R6385	1-216-295-91	SHORT 0	
R6386	1-216-699-91	METAL CHIP 100K 0.50% 1/10W	
R6387	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6391	1-249-417-11	CARBON 1K 5% 1/4W	
R6394	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R6395	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6397	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6398	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6399	1-218-756-11	METAL CHIP 150K 0.50% 1/10W	
R6400	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6401	1-216-295-91	SHORT 0	
R6402	1-216-295-91	SHORT 0	
R6403	1-216-661-11	METAL CHIP 2.7K 0.50% 1/10W	
R6404	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6405	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6409	1-216-025-91	RES,CHIP 100 5% 1/10W	
R6410	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6411	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6412	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6413	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6414	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6415	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6416	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6418	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R6419	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6420	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6421	1-216-637-11	METAL CHIP 270 0.50% 1/10W	
R6422	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R6423	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6426	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6427	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6429	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6430	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6432	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6433	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6437	1-249-422-11	CARBON 2.7K 5% 1/4W	
R6438	1-249-421-11	CARBON 2.2K 5% 1/4W	
R6439	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6440	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6441	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6442	1-216-039-00	RES,CHIP 390 5% 1/10W	
R6455	1-216-295-91	SHORT 0	
R6456	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R6457	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6458	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R6459	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R6460	1-249-393-11	CARBON 10 5% 1/4W	
R6461	1-249-411-11	CARBON 330 5% 1/4W	
R6462	1-249-406-11	CARBON 120 5% 1/4W	
R6463	1-216-095-00	RES,CHIP 82K 5% 1/10W	
R6464	1-216-079-00	RES,CHIP 18K 5% 1/10W	

D1 Board Variant Parts KV-28FC60/28FC60/Z

< CAPACITOR >

C6130	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C6134	1-102-508-91	CERAMIC CHIP 10PF	0.5PF 50V

< RESISTOR >

R6107	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6108	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R6127	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6130	1-218-768-11	METAL CHIP 470K 0.50% 1/10W	
R6141	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R6142	1-216-670-11	METAL CHIP 6.2K 0.50% 1/10W	
R6144	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R6145	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6154	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R6158	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6159	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6161	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R6174	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R6175	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6176	1-216-295-91	SHORT 0	
R6179	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R6186	1-216-045-00	RES,CHIP 680 5% 1/10W	
R6189	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R6193	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
R6198	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R6200	1-216-695-11	METAL CHIP 68K 0.50% 1/10W	
R6206	1-216-107-00	RES,CHIP 270K 5% 1/10W	
R6207	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R6265	1-216-101-91	RES,CHIP 150K 5% 1/10W	
R6268	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R6276	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6277	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6284	1-216-113-00	RES,CHIP 470K 5% 1/10W	
R6286	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6287	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R6370	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R6428	1-216-103-00	RES,CHIP 180K 5% 1/10W	
R6431	1-216-115-00	RES,CHIP 560K 5% 1/10W	

D1 Board Variant Parts KV-32FC60/32FC60/Z

< RESISTOR >

R6107	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6108	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R6127	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R6130	1-218-769-11	METAL CHIP 510K 0.50% 1/10W	
R6141	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R6142	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6144	1-216-099-00	RES, CHIP 120K 5% 1/10W	
R6145	1-216-055-00	RES, CHIP 1.8K 5% 1/10W	
R6154	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R6158	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R6159	1-216-295-91	SHORT 0	
R6161	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	
R6174	1-216-081-00	RES, CHIP 22K 5% 1/10W	
R6175	1-216-069-00	RES, CHIP 6.8K 5% 1/10W	
R6176	1-216-071-00	RES, CHIP 8.2K 5% 1/10W	
R6179	1-216-295-91	SHORT 0	
R6186	1-216-063-91	RES, CHIP 3.9K 5% 1/10W	
R6189	1-216-295-91	SHORT 0	
R6198	1-216-081-00	RES, CHIP 22K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R6206	1-216-105-91	RES, CHIP 220K 5% 1/10W	
R6207	1-216-105-91	RES, CHIP 220K 5% 1/10W	
R6265	1-216-105-91	RES, CHIP 220K 5% 1/10W	
R6266	1-216-113-00	RES, CHIP 470K 5% 1/10W	
R6268	1-216-093-91	RES, CHIP 68K 5% 1/10W	
R6276	1-216-686-11	METAL CHIP 30K 0.50% 1/10W	
R6277	1-216-686-11	METAL CHIP 30K 0.50% 1/10W	
R6284	1-216-109-00	RES, CHIP 330K 5% 1/10W	
R6286	1-216-071-00	RES, CHIP 8.2K 5% 1/10W	
R6287	1-216-081-00	RES, CHIP 22K 5% 1/10W	
R6370	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R6428	1-216-101-00	RES, CHIP 150K 5% 1/10W	
R6431	1-216-113-00	RES, CHIP 470K 5% 1/10W	

*A-1644-103-A VM Board, Complete

PART.NO	DESCRIPTION
1-675-177-11	PWB,VM
4-382-854-11	SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C5400	1-107-883-11	ELECT 330MF 20% 16V	
C5401	1-126-935-11	ELECT 470MF 20% 16V	
C5402	1-137-370-11	FILM 0.01MF 5% 50V	
C5403	1-126-935-11	ELECT 470MF 20% 6.3V	
C5405	1-126-933-11	ELECT 100MF 20% 16V	
C5406	1-126-935-11	ELECT 470MF 20% 6.3V	
C5407	1-104-989-91	FILM 0.0022MF 5% 200V	
C5408	1-104-989-91	FILM 0.0022MF 5% 200V	
C5409	1-107-649-11	ELECT 2.2MF 20% 250V	
C5410	1-130-471-00	FILM 0.001MF 5% 50V	
C5411	1-130-471-00	FILM 0.001MF 5% 50V	
C5412	1-126-933-11	ELECT 100MF 20% 16V	
C5413	1-126-933-11	ELECT 100MF 20% 16V	
C5414	1-107-652-11	ELECT 10MF 20% 250V	
C5415	1-107-363-91	FILM 0.0068MF 10% 200V	
C5416	1-102-106-00	CERAMIC 100PF 10% 50V	
C5419	1-101-880-00	CERAMIC 47PF 5% 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN5402	*1-568-878-51	PIN, CONNECTOR 3P	
CN5444	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
CN5602	*1-568-881-51	PIN, CONNECTOR 6P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D5400	8-719-991-33	DIODE 1SS133T-77	
D5401	8-719-510-02	DIODE D1NS4	
D5402	8-719-991-33	DIODE 1SS133T-77	
D5403	8-719-991-33	DIODE 1SS133T-77	
D5404	8-719-991-33	DIODE 1SS133T-77	
D5405	8-719-924-11	DIODE MTZJ-T-77-22	
D5406	8-719-924-11	DIODE MTZJ-T-77-22	

< FERRITE BEAD >

REF. NO.	PART.NO	DESCRIPTION	REMARK
FB5400	1-410-397-21	FERRITE 1.1UH	
FB5401	1-410-396-41	FERRITE 0.45UH	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L5400	1-410-784-41	INDUCTOR 0.18UH	

< TRANSISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q5400	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5404	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q5405	8-729-026-39	TRANSISTOR 2SA933AS-QT	
Q5406	8-729-045-05	TRANSISTOR 2SA2005	
Q5407	8-729-045-04	TRANSISTOR 2SC5511	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R5400	1-249-401-11	CARBON 47 5% 1/4W	
R5401	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5402	1-249-413-11	CARBON 470 5% 1/4W	
R5403	1-249-393-11	CARBON 10 5% 1/4W	F
R5404	1-249-417-11	CARBON 1K 5% 1/4W	
R5405	1-249-425-11	CARBON 4.7K 5% 1/4W	
R5406	1-249-425-11	CARBON 4.7K 5% 1/4W	
R5407	1-249-399-11	CARBON 33 5% 1/4W	
R5408	1-247-807-31	CARBON 100 5% 1/4W	
R5409	1-247-815-91	CARBON 220 5% 1/4W	
R5410	1-249-401-11	CARBON 47 5% 1/4W	
R5411	1-249-401-11	CARBON 47 5% 1/4W	
R5412	1-249-429-11	CARBON 10K 5% 1/4W	
R5413	1-249-414-11	CARBON 560 5% 1/4W	F
R5414	1-249-432-11	CARBON 18K 5% 1/4W	
R5415	1-260-311-11	CARBON 39 5% 1/2W	
R5416	1-249-383-11	CARBON 1.5 5% 1/4W	F
R5417	1-249-432-11	CARBON 18K 5% 1/4W	
R5418	1-249-414-11	CARBON 560 5% 1/4W	
R5419	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5420	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5421	1-249-383-11	CARBON 1.5 5% 1/4W	F
R5422	1-249-400-11	CARBON 39 5% 1/4W	F
R5423	1-216-483-11	METAL OXIDE 2.7K 5% 3W	F
R5425	1-249-419-11	CARBON 1.5K 5% 1/4W	

*A-1646-193-A H2 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7150	1-126-969-11	ELECT 220MF 20% 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1800	*1-564-519-11	PLUG, CONNECTOR 4P	

< DIODE >

REF. NO.	PART.NO	DESCRIPTION	REMARK
D7150	8-719-030-11	DIODE SLA-570KT3F	
	4-203-258-11	HOLDER, LED (D7150)	

< IC >

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC7150	8-749-014-59	IC TSOP1740KS1	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R7150	1-247-815-91	CARBON 220 5% 1/4W	
R7151	1-249-411-11	CARBON 330 5% 1/4W	

*A-1646-194-A H3 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7825	1-137-372-11	FILM 0.022MF 5% 50V	
C7826	1-137-372-11	FILM 0.022MF 5% 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1893	*1-564-519-11	PLUG, CONNECTOR 4P	

< JACK >

REF. NO.	PART.NO	DESCRIPTION	REMARK
J7825	1-785-448-21	JACK	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L7825	1-414-183-41	INDUCTOR 10UH	
L7826	1-414-183-41	INDUCTOR 10UH	

*A-1646-195-A H4 Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7800	1-101-810-00	CERAMIC 100PF 5% 500V	
C7801	1-101-810-00	CERAMIC 100PF 5% 500V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1803	*1-564-522-11	PLUG, CONNECTOR 7P	

< JACK >

REF. NO.	PART.NO	DESCRIPTION	REMARK
J7800	1-793-529-11	TERMINAL BLOCK, S	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
R7800	1-535-303-00	LEAD, JUMPER (5.0MM)	
R7801	1-249-417-11	CARBON 1K 5% 1/4W	
R7802	1-247-895-91	CARBON 470K 5% 1/4W	
R7803	1-247-895-91	CARBON 470K 5% 1/4W	
R7805	1-249-417-11	CARBON 1K 5% 1/4W	

*A-1648-026-A U Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C7961	1-101-005-00	CERAMIC 0.022MF 50V	
C7962	1-101-005-00	CERAMIC 0.022MF 50V	

< CONNECTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN7101	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
CN7977	*1-564-519-11	PLUG, CONNECTOR 4P	
CN7988	*1-564-519-11	PLUG, CONNECTOR 4P	
CN7990	*1-564-518-11	PLUG, CONNECTOR 3P	

< JACK >

REF. NO.	PART.NO	DESCRIPTION	REMARK
J7952	1-537-339-11	TERMINAL BOARD	

< COIL >

REF. NO.	PART.NO	DESCRIPTION	REMARK
L7954	1-414-761-11	INDUCTOR 1UH	
L7956	1-414-761-11	INDUCTOR 1UH	

*A-1651-119-A J Board, Complete

< CAPACITOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
C8105	1-126-933-11	ELECT 100MF 20% 16V	
C8106	1-126-933-11	ELECT 100MF 20% 16V	
C8107	1-126-935-11	ELECT 470MF 20% 16V	
C8108	1-126-933-11	ELECT 100MF 20% 16V	
C8109	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8110	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8111	1-126-933-11	ELECT 100MF 20% 16V	
C8112	1-128-551-11	ELECT 22MF 20% 25V	
C8144	1-107-823-11	CERAMIC CHIP 0.47MF 10% 16V	
C8145	1-107-823-11	CERAMIC CHIP 0.47MF 10% 16V	
C8200	1-104-664-11	ELECT 47MF 20% 16V	
C8201	1-163-241-11	CERAMIC CHIP 39PF 5% 50V	
C8202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8203	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C8204	1-164-506-11	CERAMIC CHIP 4.7MF 16V	

REF. NO.	PART.NO	DESCRIPTION			REMARK
C8205	1-165-319-11	CERAMIC CHIP	0.1MF		50V
C8208	1-164-506-11	CERAMIC CHIP	4.7MF		16V
C8209	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8210	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8211	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C8212	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C8213	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V
C8214	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V
C8215	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C8216	1-126-933-11	ELECT	100MF	20%	16V
C8217	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8218	1-126-964-11	ELECT	10MF	20%	50V
C8219	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8220	1-126-964-11	ELECT	10MF	20%	50V
C8221	1-104-664-11	ELECT	47MF	20%	16V
C8222	1-104-664-11	ELECT	47MF	20%	16V
C8223	1-104-664-11	ELECT	47MF	20%	16V
C8224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8225	1-104-664-11	ELECT	47MF	20%	16V
C8227	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8228	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8229	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8230	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8231	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8232	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8233	1-104-664-11	ELECT	47MF	20%	16V
C8234	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C8235	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C8236	1-126-933-11	ELECT	100MF	20%	16V
C8237	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8238	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C8239	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C8240	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C8241	1-126-964-11	ELECT	10MF	20%	50V
C8242	1-104-664-11	ELECT	47MF	20%	16V
C8243	1-110-501-11	CERAMIC CHIP	0.33MF	10%	16V
C8301	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C8302	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8303	1-126-933-11	ELECT	100MF	20%	16V
C8304	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8305	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8306	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C8307	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8308	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8309	1-126-961-11	ELECT	2.2MF	20%	50V
C8311	1-104-664-11	ELECT	47MF	20%	16V
C8313	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8314	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8318	1-104-664-11	ELECT	47MF	20%	16V
C8321	1-104-664-11	ELECT	47MF	20%	16V
C8322	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C8323	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8324	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8325	1-126-964-11	ELECT	10MF	20%	50V
C8326	1-104-664-11	ELECT	47MF	20%	16V
C8327	1-107-682-11	CERAMIC CHIP	1MF	10%	16V
C8328	1-104-664-11	ELECT	47MF	20%	16V
C8329	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8331	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8332	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8333	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8334	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8335	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8336	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8337	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8338	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8345	1-164-346-11	CERAMIC CHIP	1MF		16V
C8346	1-126-963-11	ELECT	4.7MF	20%	50V
C8424	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8501	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8503	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8504	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8505	1-126-933-11	ELECT	100MF	20%	16V
C8506	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C8507	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8508	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8509	1-126-933-11	ELECT	100MF	20%	16V
C8510	1-104-664-11	ELECT	47MF	20%	16V
C8511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8512	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8516	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8517	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8518	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8519	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8520	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8521	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8601	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8602	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8605	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8606	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8607	1-104-664-11	ELECT	47MF	20%	16V

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REF. NO.	PART.NO	DESCRIPTION		REMARK	
C8608	1-104-664-11	ELECT	47MF	20%	16V
C8609	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8610	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8611	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8612	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8613	1-104-664-11	ELECT	47MF	20%	16V
C8614	1-104-664-11	ELECT	47MF	20%	16V
C8700	1-126-964-11	ELECT	10MF	20%	50V
C8701	1-104-664-11	ELECT	47MF	20%	16V
C8702	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8703	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8704	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8705	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8706	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C8707	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C8708	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8709	1-126-964-11	ELECT	10MF	20%	50V
C8710	1-126-933-11	ELECT	100MF	20%	16V
C8801	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8802	1-104-664-11	ELECT	47MF	20%	16V
C8803	1-104-664-11	ELECT	47MF	20%	16V
C8804	1-126-933-11	ELECT	100MF	20%	16V
C8806	1-163-253-11	CERAMIC CHIP	120PF	5%	50V
C8807	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C8808	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C8809	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C8810	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C8811	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C8812	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8814	1-104-664-11	ELECT	47MF	20%	25V
C8816	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C8822	1-126-933-11	ELECT	100MF	20%	16V
C8825	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C8826	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8827	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8828	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8829	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8830	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8831	1-126-964-11	ELECT	10MF	20%	50V
C8832	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8833	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8834	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8835	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8836	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8837	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8838	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8839	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

REF. NO.	PART.NO	DESCRIPTION		REMARK	
C8840	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8841	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8842	1-104-664-11	ELECT	47MF	20%	16V
C8843	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8844	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C8846	1-126-933-11	ELECT	100MF	20%	16V
C8847	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8849	1-164-346-11	CERAMIC CHIP	1MF		16V
C8850	1-164-346-11	CERAMIC CHIP	1MF		16V
C8851	1-126-967-11	ELECT	47MF	20%	50V
C8852	1-164-346-11	CERAMIC CHIP	1MF		16V
C8853	1-126-967-11	ELECT	47MF	20%	50V
C8854	1-164-346-11	CERAMIC CHIP	1MF		16V
C8855	1-164-346-11	CERAMIC CHIP	1MF		16V
C8856	1-164-346-11	CERAMIC CHIP	1MF		16V
C8857	1-164-346-11	CERAMIC CHIP	1MF		16V
C8858	1-164-346-11	CERAMIC CHIP	1MF		16V
C8859	1-164-346-11	CERAMIC CHIP	1MF		16V
C8860	1-164-346-11	CERAMIC CHIP	1MF		16V
C8861	1-164-346-11	CERAMIC CHIP	1MF		16V
C8862	1-164-346-11	CERAMIC CHIP	1MF		16V
C8863	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8864	1-164-346-11	CERAMIC CHIP	1MF		16V
C8865	1-104-664-11	ELECT	47MF	20%	16V
C8866	1-164-346-11	CERAMIC CHIP	1MF		16V
C8867	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8868	1-126-964-11	ELECT	10MF	20%	50V
C8869	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8900	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8901	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8902	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8903	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8904	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8905	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8906	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8907	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8908	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8909	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8910	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8911	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8914	1-126-933-11	ELECT	100MF	20%	16V
C8977	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C8978	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V

< FILTER >

CF8200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)			

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< CONNECTOR >	
CN8101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN8102	*1-564-518-11	PLUG, CONNECTOR 3P	
CN8900	1-561-534-41	SOCKET, PIN 21P	
CN8901	1-695-293-11	SOCKET 21P	
CN8902	1-695-293-11	SOCKET 21P	
		< DIODE >	
D8200	8-719-158-49	DIODE RD12SB2	
D8201	8-719-158-49	DIODE RD12SB2	
D8202	8-719-158-49	DIODE RD12SB2	
D8203	8-719-158-49	DIODE RD12SB2	
D8801	8-719-158-49	DIODE RD12SB2	
D8802	8-719-158-49	DIODE RD12SB2	
D8803	8-719-158-49	DIODE RD12SB2	
D8804	8-719-158-49	DIODE RD12SB2	
D8805	8-719-158-49	DIODE RD12SB2	
D8806	8-719-158-49	DIODE RD12SB2	
D8807	8-719-158-49	DIODE RD12SB2	
D8808	8-719-158-49	DIODE RD12SB2	
D8809	8-719-158-49	DIODE RD12SB2	
D8810	8-719-158-49	DIODE RD12SB2	
D8811	8-719-158-49	DIODE RD12SB2	
D8812	8-719-158-49	DIODE RD12SB2	
D8813	8-719-158-49	DIODE RD12SB2	
D8814	8-719-158-49	DIODE RD12SB2	
D8900	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8901	8-719-158-49	DIODE RD12SB2	
D8902	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8903	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8904	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8905	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8906	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8907	8-719-158-49	DIODE RD12SB2	
D8908	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8909	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8910	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8911	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8912	8-719-158-49	DIODE RD12SB2	
D8913	8-719-158-49	DIODE RD12SB2	
D8914	8-719-158-49	DIODE RD12SB2	
D8915	8-719-158-49	DIODE RD12SB2	
		< FILTER >	
FL8200	1-236-071-11	ENCAPSULATED COMPONENT	
FL8201	1-233-764-21	FILTER	
FL8203	1-236-071-11	ENCAPSULATED COMPONENT	
FL8302	1-236-071-11	ENCAPSULATED COMPONENT	
FL8304	1-236-071-11	ENCAPSULATED COMPONENT	
FL8308	1-236-071-11	ENCAPSULATED COMPONENT	
FL8500	1-236-071-11	ENCAPSULATED COMPONENT	
FL8501	1-236-071-11	ENCAPSULATED COMPONENT	
FL8502	1-233-765-21	FILTER	
FL8503	1-233-768-21	FILTER	
FL8504	1-233-766-21	FILTER	
FL8700	1-236-071-11	ENCAPSULATED COMPONENT	
FL8701	1-236-071-11	ENCAPSULATED COMPONENT	
FL8801	1-236-071-11	ENCAPSULATED COMPONENT	
FL8802	1-236-071-11	ENCAPSULATED COMPONENT	
		< IC >	
IC8101	8-759-576-76	IC TDA2822D013TR	
IC8151	8-752-072-94	IC CXA1875AM-T4	
IC8200	8-759-544-10	IC MSP3410D-QA-B4	
IC8201	8-759-701-36	IC NJM3403AM	
IC8202	8-759-908-15	IC TL431CLP	
IC8301	8-752-094-47	IC CXA2123Q-T6	
IC8302	8-759-485-79	IC TC7SET08FU(TE85L)	
IC8500	8-752-390-37	IC CXD2064Q-T6	
IC8601	8-759-576-74	IC LF90CDT-TR	
IC8602	8-759-576-72	IC LF50CDT-TR	
IC8603	8-759-576-72	IC LF50CDT-TR	
IC8604	8-759-576-72	IC LF50CDT-TR	
IC8700	8-752-390-35	IC CXD2057M-T6	
IC8801	8-752-090-38	IC CXA2129Q-TL	
IC8802	8-759-385-76	IC MC14052BDR2	
		< JACK >	
J8901	1-774-747-11	JACK BLOCK, PIN	
		< COIL >	
L8150	1-414-757-11	INDUCTOR 100UH	
L8200	1-412-006-42	INDUCTOR CHIP 10UH	
L8201	1-412-064-11	INDUCTOR CHIP 100UH	
L8801	1-412-751-11	INDUCTOR 18UH	
		< TRANSISTOR >	
Q8100	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8156	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8157	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8200	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q8300	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8306	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8308	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8309	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8310	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8501	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8504	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8700	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8801	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8802	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8804	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8805	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8807	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8808	8-729-039-67	TRANSISTOR BSS83	
Q8809	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8812	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q8817	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8818	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8819	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8902	8-729-216-22	TRANSISTOR 2SA1162-G	

< RESISTOR >

REF. NO.	PART.NO	DESCRIPTION	REMARK
JR8401	1-216-295-91	SHORT 0	
R8103	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R8104	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R8105	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R8106	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R8107	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R8108	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R8109	1-249-389-11	CARBON 4.7 5% 1/4W	F
R8110	1-249-389-11	CARBON 4.7 5% 1/4W	F
R8111	1-216-033-00	RES,CHIP 220 5% 1/10W	
R8112	1-216-033-00	RES,CHIP 220 5% 1/10W	
R8115	1-216-029-00	RES,CHIP 150 5% 1/10W	
R8116	1-216-029-00	RES,CHIP 150 5% 1/10W	
R8117	1-216-029-00	RES,CHIP 150 5% 1/10W	
R8118	1-216-029-00	RES,CHIP 150 5% 1/10W	
R8165	1-216-295-91	SHORT 0	
R8167	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8168	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8174	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R8175	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8200	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8201	1-216-295-91	SHORT 0	
R8202	1-216-021-00	RES,CHIP 68 5% 1/10W	
R8203	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R8204	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8205	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R8206	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8208	1-216-037-00	RES,CHIP 330 5% 1/10W	
R8209	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R8210	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8211	1-216-295-91	SHORT 0	
R8212	1-216-295-91	SHORT 0	
R8213	1-216-295-91	SHORT 0	
R8214	1-216-295-91	SHORT 0	
R8216	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8217	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8218	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8219	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8220	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8221	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8222	1-216-295-91	SHORT 0	
R8223	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8224	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8225	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8226	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8227	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8228	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8229	1-216-295-91	SHORT 0	
R8230	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R8231	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8232	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8233	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8234	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8235	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8236	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8237	1-216-043-91	RES,CHIP 560 5% 1/10W	
R8238	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R8239	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R8240	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R8243	1-216-021-00	RES,CHIP 68 5% 1/10W	
R8300	1-216-295-91	SHORT 0	
R8302	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8306	1-216-083-00	RES,CHIP 27K 5% 1/10W	
R8307	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8308	1-216-039-00	RES,CHIP 390 5% 1/10W	
R8309	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8310	1-216-037-00	RES,CHIP 330 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8312	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R8313	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R8314	1-216-295-91	SHORT 0	
R8316	1-216-037-00	RES,CHIP 330 5% 1/10W	
R8317	1-216-295-91	SHORT 0	
R8318	1-216-295-91	SHORT 0	
R8319	1-216-295-91	SHORT 0	
R8320	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8322	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8323	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8324	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8326	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8328	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8329	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8330	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8331	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8332	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8333	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8334	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8336	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8337	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8338	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8339	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8340	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R8341	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8344	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R8345	1-216-079-00	RES,CHIP 18K 5% 1/10W	
R8346	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R8347	1-216-079-00	RES,CHIP 18K 5% 1/10W	
R8506	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R8507	1-216-295-91	SHORT 0	
R8508	1-216-043-91	RES,CHIP 560 5% 1/10W	
R8509	1-216-031-91	RES,CHIP 180 5% 1/10W	
R8510	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R8511	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8512	1-216-295-91	SHORT 0	
R8514	1-216-017-91	RES,CHIP 47 5% 1/10W	
R8517	1-216-295-91	SHORT 0	
R8519	1-216-037-00	RES,CHIP 330 5% 1/10W	
R8520	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8521	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R8522	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8523	1-216-033-00	RES,CHIP 220 5% 1/10W	
R8524	1-216-295-91	SHORT 0	
R8526	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R8527	1-216-047-91	RES,CHIP 820 5% 1/10W	
R8528	1-216-047-91	RES,CHIP 820 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION	REMARK
R8529	1-216-055-00	RES,CHIP 1.8K 5% 1/10W	
R8530	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R8531	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
R8532	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8700	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8701	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8702	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8703	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8704	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8705	1-216-295-00	SHORT 0	
R8706	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8707	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8708	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R8709	1-216-059-91	RES,CHIP 2.7K 5% 1/10W	
R8801	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8802	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8803	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8804	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8805	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R8806	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R8807	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8810	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R8811	1-216-037-00	RES,CHIP 330 5% 1/10W	
R8812	1-216-037-00	RES,CHIP 330 5% 1/10W	
R8813	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8816	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8817	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8818	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R8819	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8821	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8822	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8823	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R8825	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8826	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R8833	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8834	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8835	1-216-041-00	RES,CHIP 470 5% 1/10W	
R8836	1-216-025-91	RES,CHIP 100 5% 1/10W	
R8846	1-216-295-91	SHORT 0	
R8854	1-216-029-91	RES,CHIP 150 5% 1/10W	
R8855	1-216-031-91	RES,CHIP 180 5% 1/10W	
R8856	1-216-055-91	RES,CHIP 1.8K 5% 1/10W	
R8857	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R8858	1-216-079-00	RES,CHIP 18K 5% 1/10W	
R8859	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R8862	1-216-295-91	SHORT 0	
R8864	1-216-295-91	SHORT 0	

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REF. NO.	PART.NO	DESCRIPTION			REMARK
R8865	1-216-023-00	RES,CHIP	82	5%	1/10W
R8866	1-216-022-00	RES,CHIP	75	5%	1/10W
R8867	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8868	1-216-033-00	RES,CHIP	220	5%	1/10W
R8869	1-216-033-00	RES,CHIP	220	5%	1/10W
R8870	1-216-295-91	SHORT	0		
R8871	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8872	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8873	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8874	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8875	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8876	1-216-093-91	RES,CHIP	68K	5%	1/10W
R8877	1-216-093-91	RES,CHIP	68K	5%	1/10W
R8878	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8879	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R8881	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8882	1-216-079-00	RES,CHIP	18K	5%	1/10W
R8883	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R8885	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R8888	1-216-033-00	RES,CHIP	220	5%	1/10W
R8889	1-216-033-00	RES,CHIP	220	5%	1/10W
R8891	1-216-295-91	SHORT	0		
R8892	1-216-295-91	SHORT	0		
R8893	1-216-295-91	SHORT	0		
R8900	1-216-039-00	RES,CHIP	390	5%	1/10W
R8901	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8902	1-216-039-00	RES,CHIP	390	5%	1/10W
R8903	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8904	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8905	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8906	1-216-035-00	RES,CHIP	270	5%	1/10W
R8907	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8908	1-216-035-00	RES,CHIP	270	5%	1/10W
R8909	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8911	1-216-025-91	RES,CHIP	100	5%	1/10W
R8913	1-216-022-00	RES,CHIP	75	5%	1/10W
R8914	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8915	1-216-022-00	RES,CHIP	75	5%	1/10W
R8916	1-216-033-00	RES,CHIP	220	5%	1/10W
R8917	1-216-033-00	RES,CHIP	220	5%	1/10W
R8918	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8919	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8922	1-216-022-00	RES,CHIP	75	5%	1/10W
R8923	1-216-022-00	RES,CHIP	75	5%	1/10W
R8924	1-216-022-00	RES,CHIP	75	5%	1/10W
R8925	1-216-022-00	RES,CHIP	75	5%	1/10W
R8926	1-216-033-00	RES,CHIP	220	5%	1/10W
R8927	1-216-033-00	RES,CHIP	220	5%	1/10W
R8928	1-216-033-00	RES,CHIP	220	5%	1/10W
R8929	1-216-039-00	RES,CHIP	390	5%	1/10W
R8930	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8931	1-216-039-00	RES,CHIP	390	5%	1/10W
R8932	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8933	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8934	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8935	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8936	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8937	1-216-035-00	RES,CHIP	270	5%	1/10W
R8938	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8939	1-216-035-00	RES,CHIP	270	5%	1/10W
R8940	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8941	1-216-025-91	RES,CHIP	100	5%	1/10W
R8942	1-216-009-91	RES,CHIP	22	5%	1/10W
R8943	1-216-022-00	RES,CHIP	75	5%	1/10W
R8944	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8945	1-216-022-00	RES,CHIP	75	5%	1/10W
R8946	1-216-033-00	RES,CHIP	220	5%	1/10W
R8947	1-216-039-00	RES,CHIP	390	5%	1/10W
R8948	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8949	1-216-022-00	RES,CHIP	75	5%	1/10W
R8950	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8951	1-216-033-00	RES,CHIP	220	5%	1/10W
R8952	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8953	1-216-035-00	RES,CHIP	270	5%	1/10W
R8954	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8955	1-216-039-00	RES,CHIP	390	5%	1/10W
R8956	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8957	1-216-025-91	RES,CHIP	100	5%	1/10W
R8958	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8959	1-216-022-00	RES,CHIP	75	5%	1/10W
R8960	1-216-033-00	RES,CHIP	220	5%	1/10W
R8961	1-216-022-00	RES,CHIP	75	5%	1/10W
R8962	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R8963	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8964	1-216-035-00	RES,CHIP	270	5%	1/10W
R8965	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8968	1-216-022-91	RES,CHIP	75	5%	1/10W
R8969	1-216-033-00	RES,CHIP	220	5%	1/10W
R8974	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8977	1-216-037-00	RES,CHIP	330	5%	1/10W
R8978	1-216-037-00	RES,CHIP	330	5%	1/10W
R8979	1-216-045-00	RES,CHIP	680	5%	1/10W
R8980	1-216-045-00	RES,CHIP	680	5%	1/10W
R8981	1-216-089-91	RES,CHIP	47K	5%	1/10W

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION	REMARK
R8982	1-216-079-00	RES,CHIP 18K 5%	1/10W
R8994	1-216-073-00	RES,CHIP 10K 5%	1/10W
R8995	1-216-059-91	RES,CHIP 2.7K 5%	1/10W
R8996	1-216-059-91	RES,CHIP 2.7K 5%	1/10W
R8998	1-216-041-91	RES,CHIP 470 5%	1/10W
		< CRYSTAL >	
X8200	1-781-148-21	VIBRATOR, CRYSTAL	
X8301	1-781-612-11	VIBRATOR, CRYSTAL	
X8700	1-767-342-21	VIBRATOR, CRYSTAL	

MISCELLANEOUS

REF. NO.	PART.NO	DESCRIPTION	REMARK
⚠	1-416-466-11	COIL, DEMAGNETIC (KV-28FC60/28FC60/Z)	
⚠	1-416-769-11	COIL, DEMAGNETIC (KV-32FC60/32FC60/Z)	
	1-452-032-00	MAGNETIC DISK; 10MM	
	1-452-094-00	MAGNETIC, ROTATABLE DISK; 15MM	
⚠	1-453-319-11	TRANSFORMER ASSY, FLYBACK (NX-4512/U214)	
	1-529-154-11	SPEAKER (5.7x24CM)	
	1-529-417-11	SPEAKER (8CM)	
	1-452-896-11	COIL, NA ROTATION (RT200)	
⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
⚠	1-769-185-21	CORD, POWER (WITH CONNECTOR)	
	1-693-340-11	TUNER/VIF (FR)	
⚠	8-737-786-05	PICTURE TUBE (W66LLX060X) (SD-299) (KV-28FC60/28FC60/Z)	
⚠	8-735-054-05	PICTURE TUBE (W76LLZ060X) (SD-302) (KV-32FC60/32FC60/Z)	
⚠	1-451-481-11	DEFLECTION YOKE (Y28RVC2) (KV-28FC60/28FC60/Z)	
⚠	1-451-480-11	DEFLECTION YOKE (Y32RVC2) (KV-32FC60/32FC60/Z)	
⚠	8-453-011-11	NECK ASSY, NA299-M	
⚠	1-251-317-63	CAP ASSY, HIGH VOLTAGE	

ACCESSORIES AND PACKAGING MATERIALS

REF. NO.	PART.NO	DESCRIPTION	REMARK
	*4-205-029-11	MANUAL, INSTRUCTION	
	*4-029-168-01	BAG PROTECTION	
	*4-204-879-01	INDIVIDUAL CARTON (KV-28FC60/28FC60/Z)	
	*4-204-872-01	INDIVIDUAL CARTON (KV-32FC60/32FC60/Z)	
	*4-204-880-01	CUSHION (UPPER) (ASSY) (KV-28FC60/28FC60/Z)	
	*4-204-873-01	CUSHION (UPPER) (ASSY) (KV-32FC60/32FC60/Z)	
	*4-204-881-01	CUSHION (LOWER) (ASSY) (KV-28FC60/28FC60/Z)	
	*4-204-874-01	CUSHION (LOWER) (ASSY) (KV-32FC60/32FC60/Z)	

REMOTE COMMANDER

REF. NO.	PART.NO	DESCRIPTION	REMARK
	1-418-572-11	REMOTE COMMANDER (RM-892) (KV-28FC60/32FC60)	
	1-418-573-11	REMOTE COMMANDER (RM-892) (KV-28FC60/Z/32FC60/Z)	

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